

# THE MILLING WORLD

AND

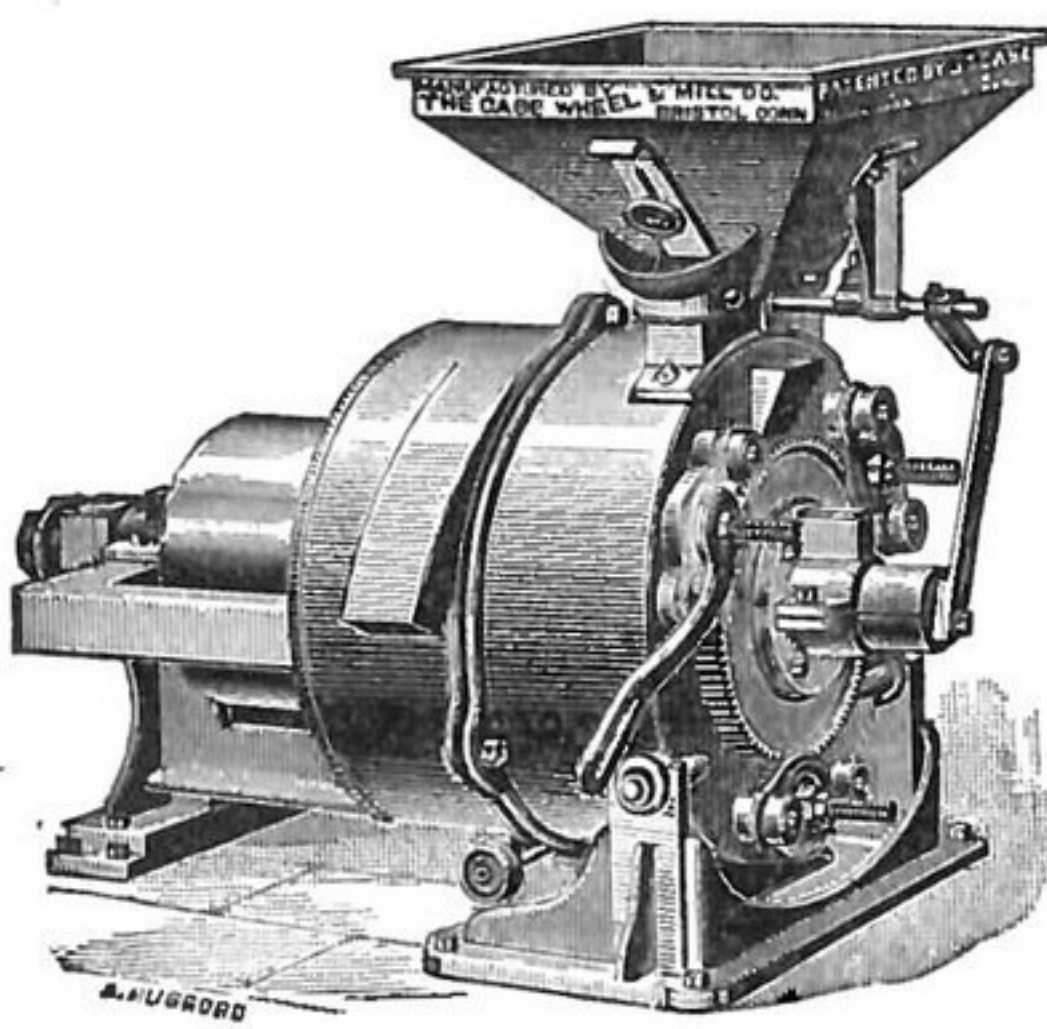
CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XXII. No. 15.

BUFFALO, N. Y., JUNE 9, 1890.

\$1.50 PER YEAR.



## VICTORY OVER ALL OTHERS. SINGLE & DOUBLE VERTICAL GRINDING MILLS. (J. T. CASE'S PATENT.)

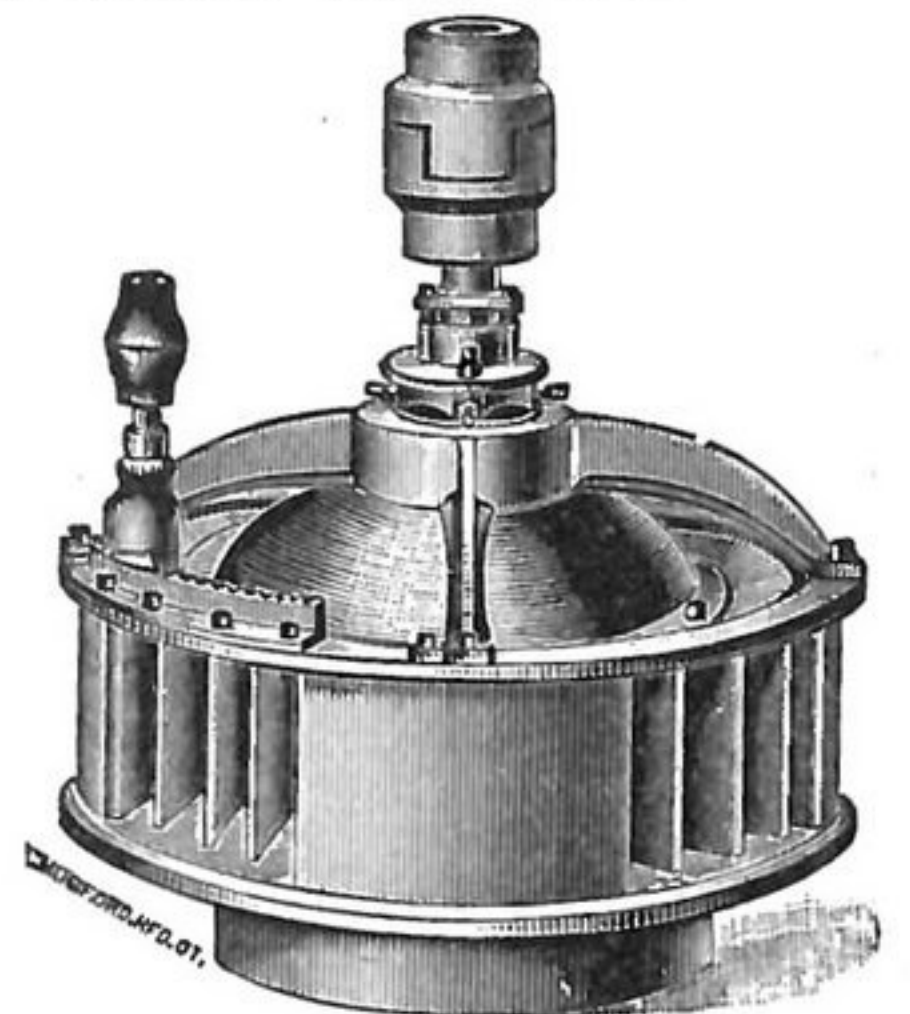
FACTS ARE MIGHTIER THAN ASSERTIONS. READ WHAT THEY SAY:

"Our 20-inch mill made by the Case Wheel & Mill Co. is in every respect satisfactory, easy to handle, and best results obtained of any mill in the country, with same quantity coal and power."—A. S. RUSSELL & Co., Meriden, Conn.  
 "Superior to any mill in use."—GEO. WESTON, Bristol, Conn.  
 "The best satisfaction in quantity and quality."—CHILD'S ELEVATOR, Manchester, Ct.  
 "We take pleasure in recommending it."—GARLAND, LINCOLN & Co., Worcester, Mass.

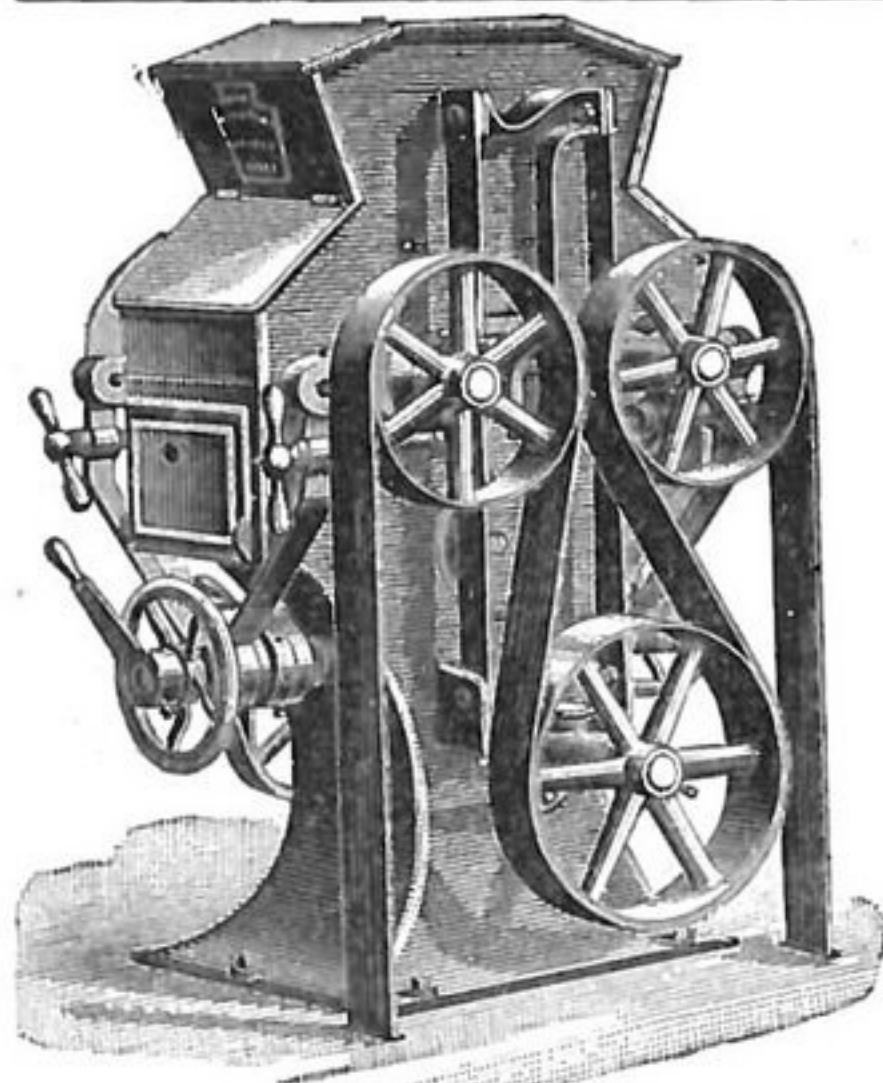
SEND FOR CATALOGUE—ILLUSTRATED AND DESCRIPTIVE.

## The Improved National Turbine Water Wheel

The Best for Economy; The Best for Durability; The Best for Power. ONE THOUSAND FIVE HUNDRED NATIONAL WATER WHEELS IN USE Prove that our Assertions are Supported by the Leading Manufacturers in the Country. Send for illustrated catalogue and prices to the manufacturers.



The Case Wheel & Mill Co., Bristol, Conn.



THE "KEYSTONE."

HONEST WORK.

## GOOD FLOUR.

THE J. B. ALLFREE CO., INDIANAPOLIS, IND.

GENTLEMEN: We have had the mill you built for us in successful operation since November, 1889. We are glad to say that **WE HAVE ONE OF THE BEST 60-BARREL MILLS IN THE STATE.** Our flour will compete with any thing in the market; our percentage of low grade is very small and our clean up is as good as we ask. Your rolls, in our judgment, are superior to any thing on the market, being light running, easily adjusted and having other improvements which we fail to find on any other roller mill. Your "Success" Bolters, Centrifugal, Bran Duster, and in fact all the machinery gives perfect satisfaction. Every thing is smooth, cool and easy, making the least noise of any mill of same capacity we have ever been in when running. A farmer came in a few days ago and said that **our mill did not make any more noise than an easy running sewing machine.** We honestly believe that our line of machines has more points of excellence than any we have seen, which is evident from the fact that this is the second complete mill which you have built for us (or practically the firm), within four years, both of which are running, this latter being an improvement over the former one, and is what its name implies, a "Model Roller Mill." Wishing you the success you deserve, we are,

## PERFECT MACHINERY.

FREETOWN, IND., April 7, 1890.

Yours truly,

TOBROCK, ALDENHAGEN & CO.

CLOSE FINISH.

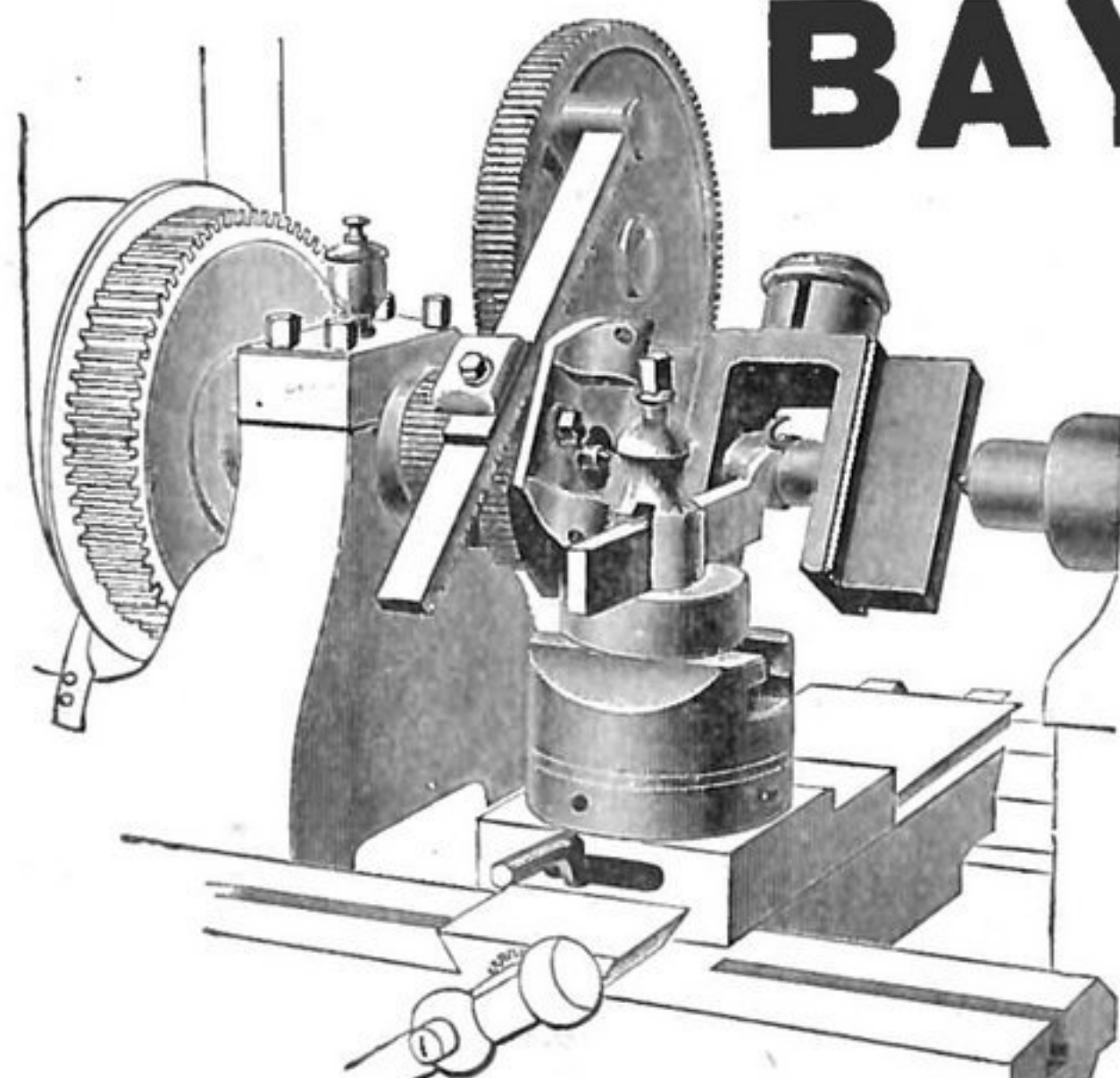
ADDRESS THE J. B. ALLFREE CO., 76 to 86 Shelby Street, INDIANAPOLIS, IND.

# BAY STATE IRON WORKS

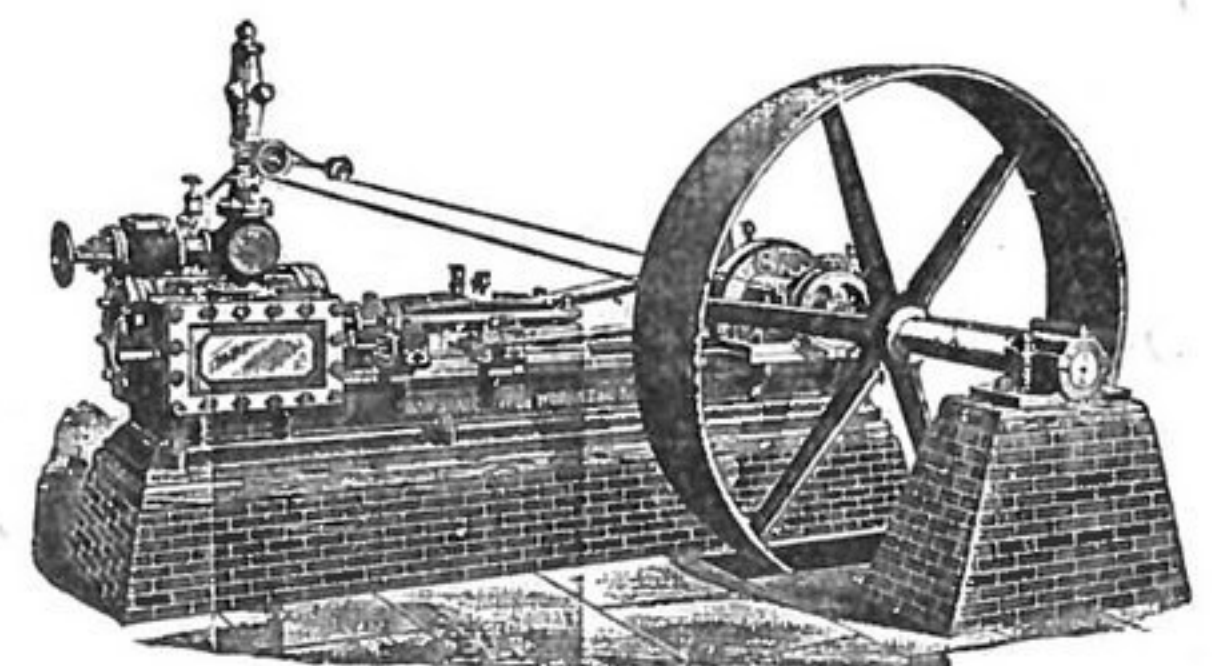
— MANUFACTURERS OF —

## Engines, Boilers & Hoisting Machines

Also the Patent Cross-Head Machine and Acme Cube Pipe Tongs. We make either Center or Side Crank Engines, on same bed. Make engines from 5 to 250 Horse-Power. Have over 3,500 Engines and Boilers and over 1,000 Hoisting Machines in use, and all giving good satisfaction. Send for Catalogue and Prices.



PATENT CROSS-HEAD MACHINE.



HORIZONTAL ENGINES.

Noble & Hall, Box 462, Erie, Pa.



# OFFICE OF CASE MANUFACTURING COMP'Y COLUMBUS, OHIO.

## The Case Roller Mills. Over 14,000 Pairs in Use.

PLEASE READ OUR DESCRIPTION OF THEM, EVERY STATEMENT OF WHICH IS ABSOLUTELY TRUE.

PLEASE READ WHAT MILL OWNERS SAY ABOUT THEM.



The accompanying cut is a correct illustration of our latest improved Four Roller Mill. For fine work, great durability, simplicity, and general excellence, they stand "head and shoulders" above all others.

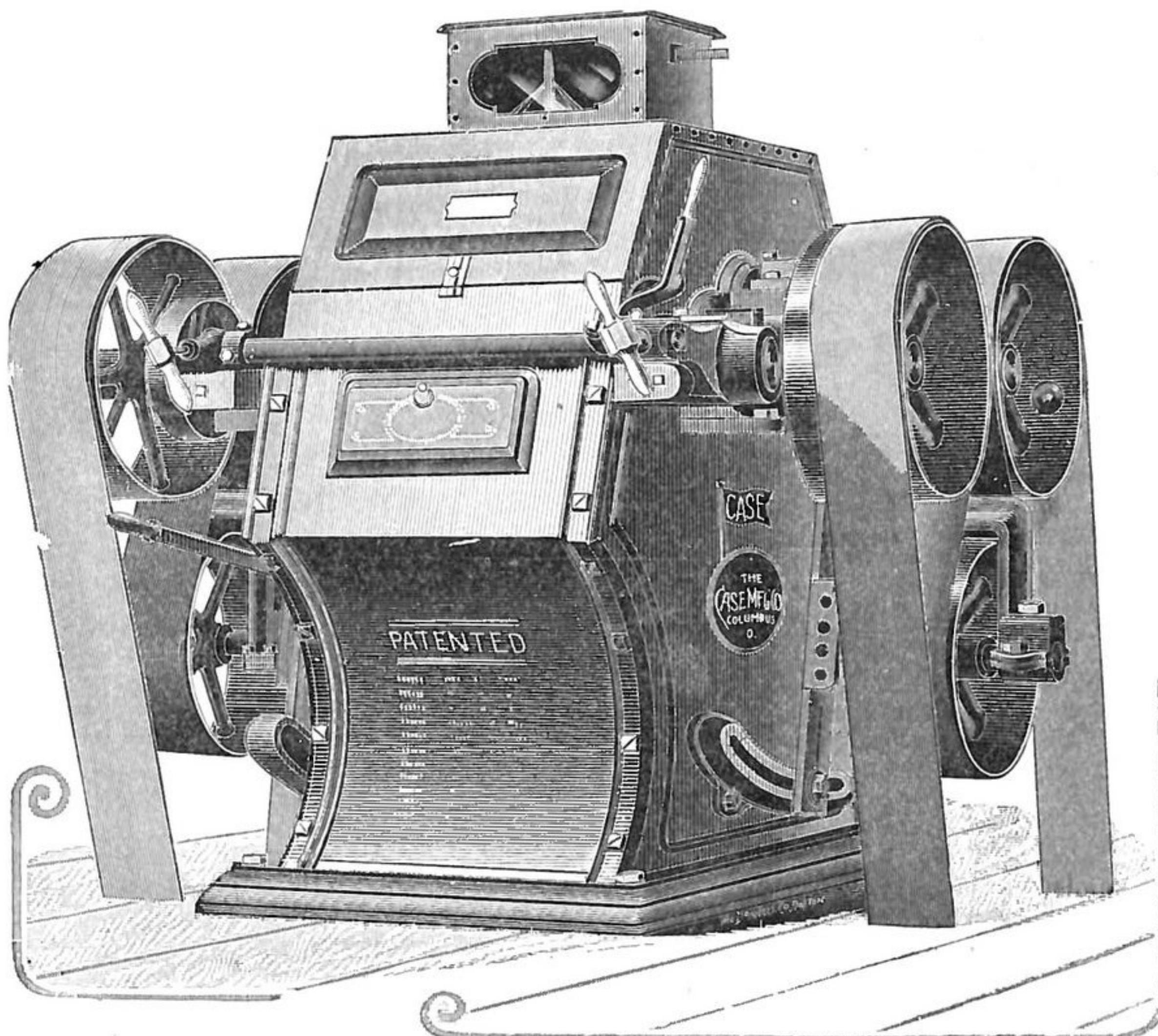
The frame is of iron with a heavy iron base.

The wood-work in top is of select cherry and black walnut, carefully shellacked and varnished.

The handles of adjusting screws and levers are finely nickel plated.

The joints are tight and dustless.

The adjustments easy, simple and perfect.



The roll bearings are wide and finely babbitted.

The belt drive is positive—no little short belts to slip.

The door for examining stock is a great convenience.

The arrangement for leveling rolls, simple and accurate.

The rolls can be thrown apart their entire length by one movement of the lever, and brought back again to original position, requiring no re-setting or experimenting.

Each machine is provided with our AUTOMATIC VIBRATING FEED, which requires no attention, and never fails to spread the feed the entire length of the rolls.



## Please Read These Testimonials.

LITCHFIELD MILLING CO., MANUFACTURERS OF FLOUR. }  
LITCHFIELD, ILL., Sept. 14, 1889.

Case Manufacturing Co., Columbus, Ohio.

GENTLEMEN: We are in receipt of your favor of the 11th inst., and in reply would say we have twenty CASE AUTOMATIC FEEDS on our Dawson and Allis Rolls, and we are greatly pleased with them. We have tested the Feeds thoroughly on different materials, and find they work as well on bran and germ and other soft materials, as they do on middlings. We have derived great benefit from the use of them, and can cheerfully recommend them to the milling fraternity.

Yours truly,

J. C. EDWARDS, General Manager.

OFFICE OF A. J. MILLER, PROPRIETOR WHITE ROSE MILLS. }  
DEALER IN FLOUR, GRAIN AND MILL FEED. }  
METAMORA, IND., Nov. 19, 1889.

Case Manufacturing Co., Columbus, Ohio.

GENTLEMEN: Your Feed arrived O. K., and placed it in working order in a very short time. You have furnished me a daisy Feed. After regulating your Feed, it needs no more attention. It pays for itself in one week over the "Roller Feed" in cleaning up the

stock, and also insuring the superiority at same time. I forward you the amount of bill.

Yours truly, A. J. MILLER.

TREZEVANT, TENN., Feb. 27, 1889.

The Case Manufacturing Co.

GENTLEMEN: We have five double stands of Rolls with Roller Feeds on all of them. A short time ago one of your agents induced us to try one of your Automatic Shaker Feeds. We find that it works much better than the Roll Feed, distributing the material the whole length of the Roll. We heartily recommend your feeds to any one wishing to put in new machinery.

Respectfully yours, FUQUA, HARRIS & CO.

W. C. MANSEFIELD & CO., MERCHANT MILLERS. }  
CLEVELAND, TENN., Aug. 29, 1889.

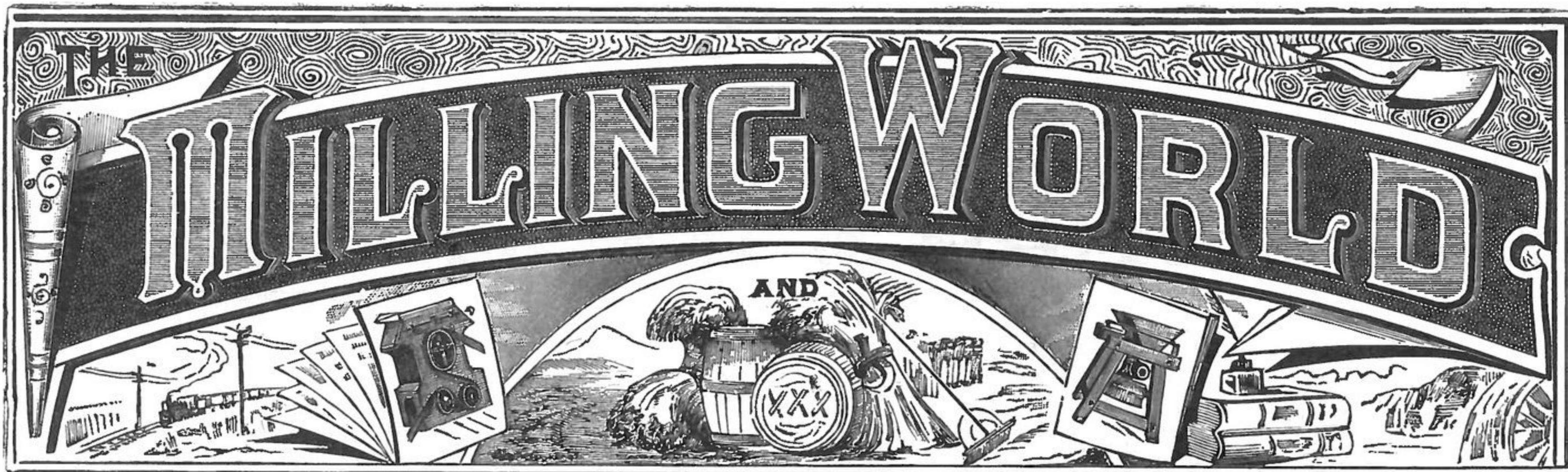
Case Mfg. Co., Columbus, O.

GENTLEMEN: If we were to build a hundred mills, we would not permit any other than the "CASE ROLL" to enter them. They are the best roll on earth.

Yours truly,

W. C. MANSFIELD & CO.





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CURIOSITY to see the great milling town of Minneapolis promises to attract a large number of visitors next week. Interest in the Millers' National Association is a secondary consideration with many of those who propose to visit Minneapolis during the week of the convention. Special railroad rates and all sorts of inducements are offered to draw a crowd, and if the Minneapolis convention fails to retrieve the Milwaukee fiasco of 1889, and to surpass all other former conventions in size and bustle, it will not be the fault of the Minneapolitans who are preparing an elaborate programme of hospitable entertainment.

THE continued reports indicating a winter-wheat shortage in the United States are met by continuously improving reports from Europe. No attempt is made to "brace up" the Indian wheat outlook, which is bad beyond hope or dispute, but in Europe the changes reported are nothing short of marvelous. American dealers will do well to exercise caution in accepting the European reports. They are evidently managed by dealers, whose interest it is to bear the crop until they have "shaken out" the holdings and got everything in their own hands. When once they have control of the stocks and are in position to be benefited by an advance, they will let the truth come out. If any reliance is to be placed upon the Southern Hemisphere wheat crops now gathered, upon the Northern Hemisphere acreage reported, and upon the conditions published from time to time since the first of March, in all the wheat-growing countries north of the equator, the wheat crop of 1890 in the world will certainly fall considerably below the average. It would be well for the wheat growers and dealers of the United States to play a "waiting" part once. They have been playing the "rush" right along. They have been "too fresh." They have been playing directly into the hands of their competitors. Now let them wait until the laws of demand and supply push aside the veil of speculation and manipulation. America will have a surplus of wheat, and it will be large enough to smash prices if the holders dump it directly from the harvest field into the market. This year they should make haste slowly,

UNQUALIFIED regret will be felt by every miller and milling engineer in the United States on hearing of the death of the famous expert, inventor and engineer, J. A. Arnold Buchholz, who shot himself at Bristol, England, on the 13th of May. Flour-makers in all countries owe a large debt to the mechanical ingenuity of the unfortunate man, who did much to develop, perfect and systematize the art of making flour. While not always able or willing to follow Mr. Buchholz in all his departures and novelties in milling, millers and engineers were at all times deeply interested in all that he did, as they recognized his ability, his originality and his persevering earnestness. Many of the standard machines used in flouring-mills, in both the United States and Europe, bear the impress of his genius, his thought, his experience and his labor. He was still a young man when he put a violent end to his life, being only forty-three years old. The singular letter, written by him the day before he ended his

life, and forwarded at his request to our two London cotemporaries, appears on another page in this issue, in connection with the announcement of his death. In view of his evident determination to "resign the management of his affairs to other hands," the letter will carry a pathetic interest to all millers, as it shows that his devotion to the flour-making art was so complete, so ingrained and so all-pervading that, even when he had made up his mind to die by his own hand, the thought of death was forced into a second place in his last thoughts, and milling retained the first place to the end. In the letter he refers to those who opposed him with "greater rigor than the circumstances absolutely demanded," and that reference, with the one referring to his own sufferings and defects of character, seems to be all there is in the communication indicating a morbid state of mind. Whatever may have caused the untimely ending of so brilliant a career, millers everywhere will regret the death of J. A. A. Buchholz.

MANITOBAN boomers overboom. One Thomas Thompson, writing from Brandon, Manitoba, to a cotemporary, says: "If all goes well it won't be very long before this country and the Canadian Northwest begin to count as a wheat country, and will have to be taken notice of in figuring probable supply. The last two years our crops did not amount to much so far as a surplus for export was concerned, nevertheless the acreage has been steadily increasing, and this season in the Province of Manitoba alone we will have something like 750,000 acres of wheat, and perhaps about 200,000 acres in the territories west of us. In 1887, when little more than half the above acreage was in crop, we had a most prolific yield, averaging for this province 32 bushels per acre. We call our normal average 25 bushels per acre, so you see if we were favored with that yield on nearly a million acres it counts for something." The overboom consists in claiming 25 and 30 bushels of wheat to the acre as an average Manitoban output. Here and there, on favorably located and specially cultured farms, such yields may be found in Manitoba, but to hold up such figures as representing the "average" production of the whole province is a gross falsification that has no excuse whatever. In the United States great special yields are reported, as high as 72 bushels to the acre in Oregon and Washington, and from 30 to 42 bushels in western New York, but it would be inexcusable mendacity to use those yields as typical ones. A misrepresentation is a misrepresentation in Canada as well as in the United States, and nothing ever has been or will be made by lying about crops. The Canadian Northwest is always just on the point of doing something marvelous, but the cold hard facts have always fallen far below the anticipation, and, so long as frost retains its power to damage growing wheat, just so long the extreme northern wheat sections will be nothing more nor less than risky and unreliable sources of supply. Mr. Thompson, of Brandon, may assure the world that his frosty country will yield 23,750,000 or 28,500,000 bushels of wheat this season, and we would be happy to see the assurance made doubly sure by the harvestors, but we know something of Manitoba's frost record, and we fear for the Thompsonian prediction.



# The DAWSON ROLL WORKS CO.

## FOUNDERS & MACHINISTS,

—MANUFACTURERS OF THE—

# Dawson Roller Mills

—AND FURNISHERS OF—

## CHILLED IRON ROLLS

WITH DAWSON PATENT CORRUGATION.

ALL STYLES OF FLOUR MILL ROLLS RE-GROUND AND  
RE-CORRUGATED WITH ANY FORM OF CORRUGATION.

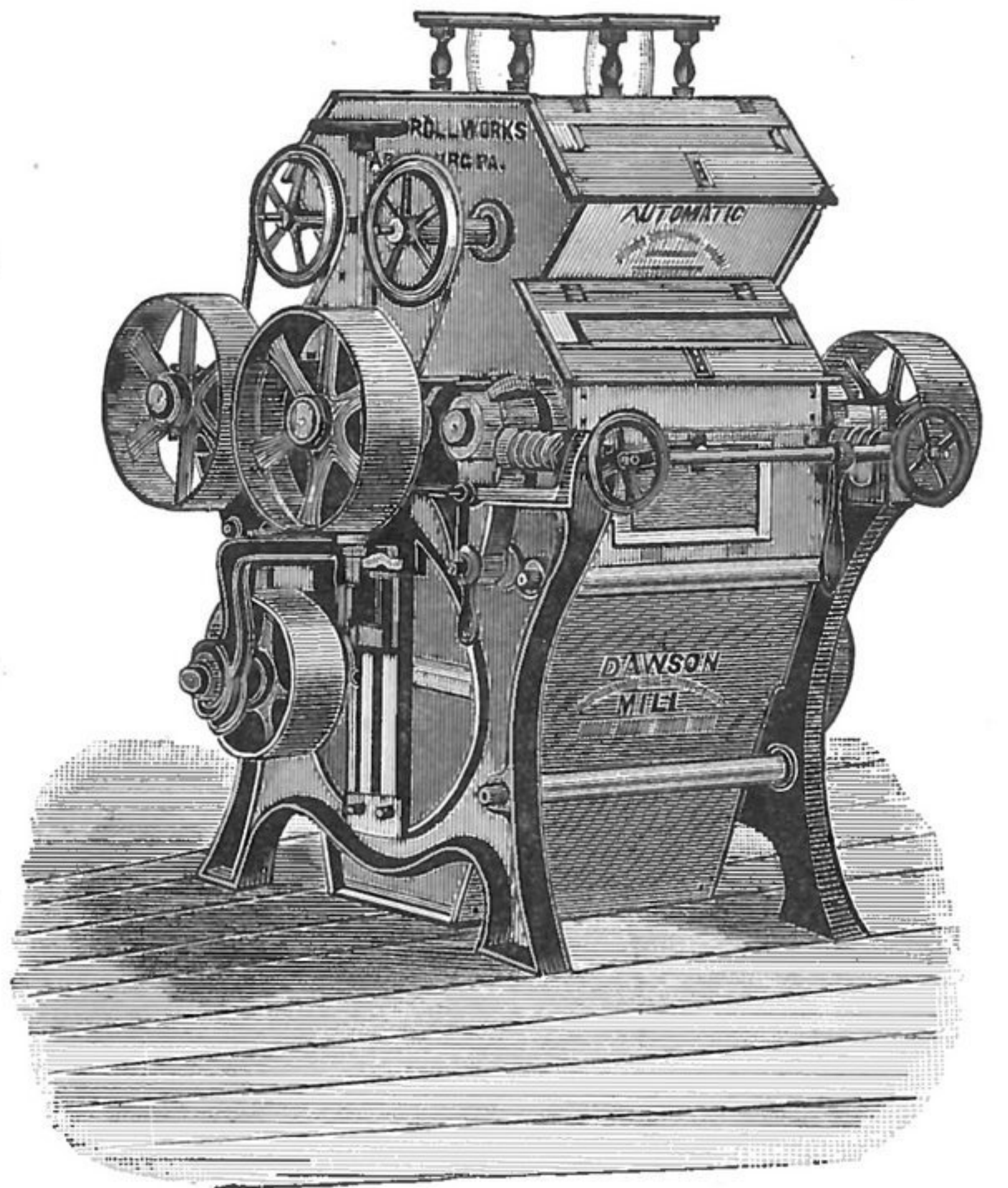
We have had large and extended experience in grinding and corrugating chilled rolls for milling, and have one of the largest and most improved plants in the country for this work, which enables us to meet the most exacting requirements of the trade promptly.

ORDERS AND CORRESPONDENCE SOLICITED.

# DAWSON ROLL WORKS CO.

South and Short Streets,

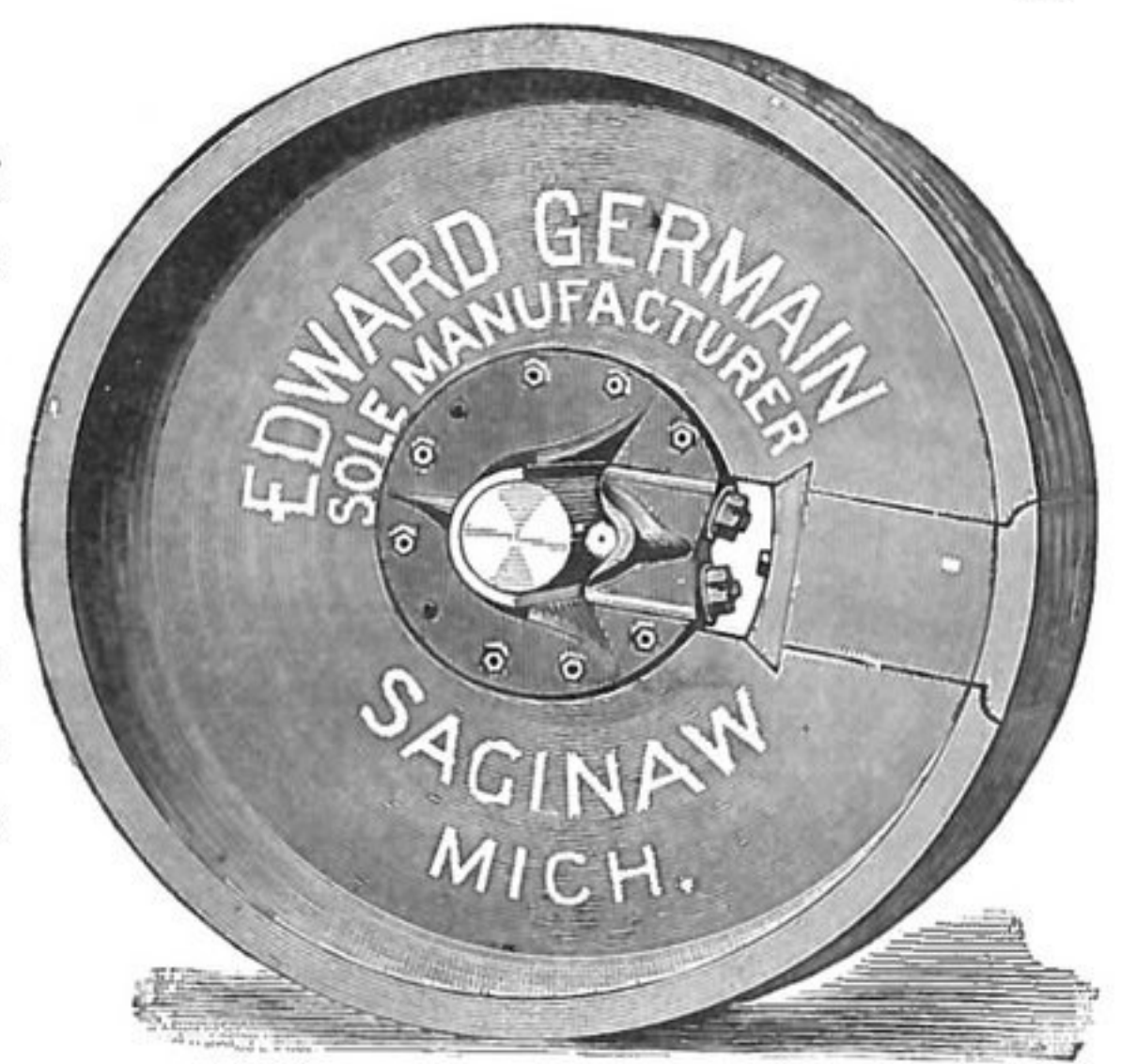
HARRISBURG, PA.



# The Cowles "Reliable" Sectional Wood Pulley



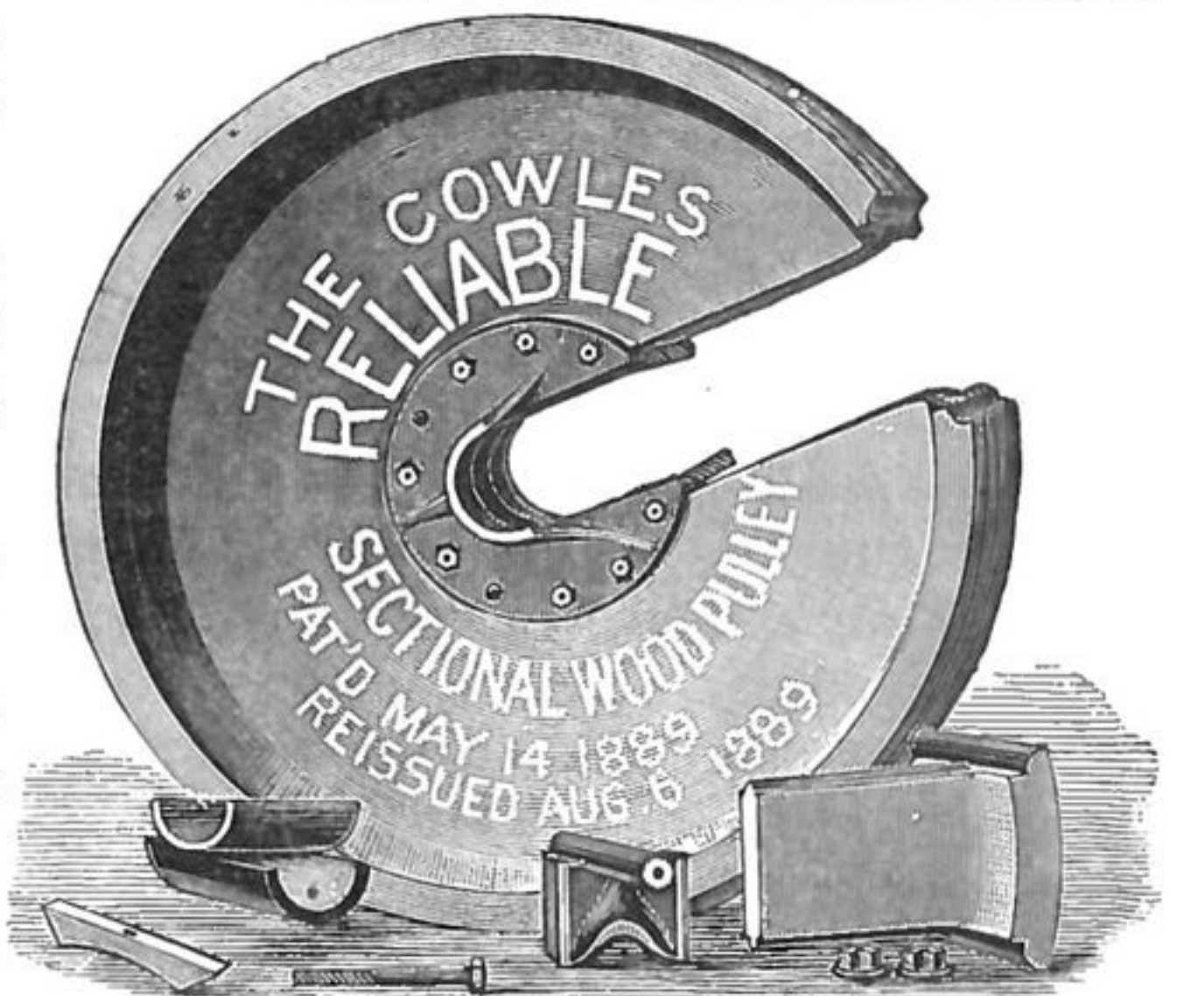
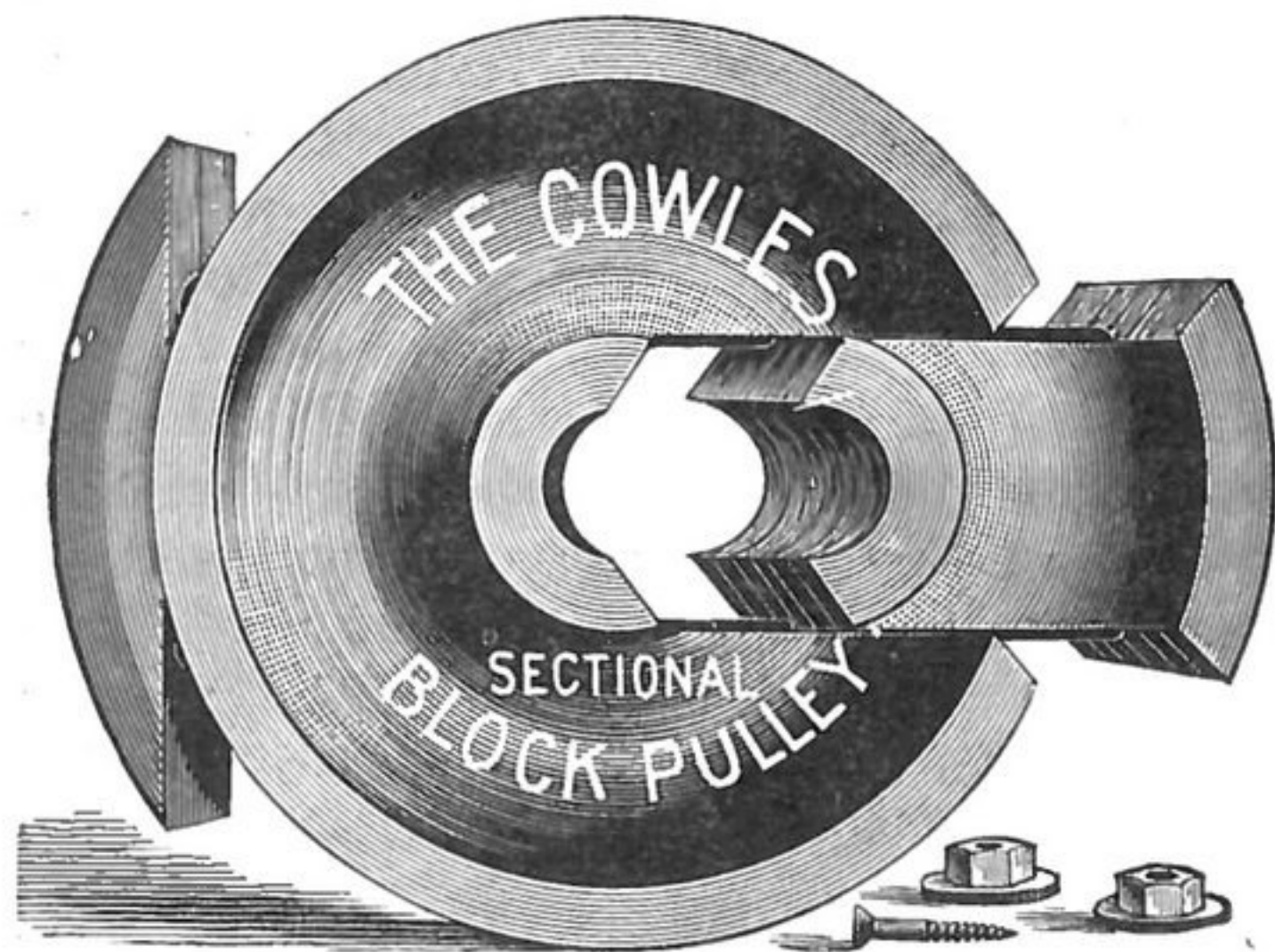
Web made of several layers glued together with grain crossing, and faced up on both sides. Iron flanges securely bolted to web. Rim put on after web has been trued up. Web and rim turned on inside and face, making perfect running pulley. Rim supported entire circumference. Positive self-gripping device for securing pulley to shafting, which is self-centering, and can not slip with wear.



A wooden rim pulley transmits from 30 to 50 per cent more power with same belt than an iron one.

Two-thirds lighter than iron, bearings will wear longer and the expense for lubricant will be less.

Having solid web, there is no air resistance. The "Reliable" can be placed on shaft or position changed in one-fourth the time required with any other pulley.



EDWARD GERMAIN, SOLE MANUFACTURER, SAGINAW, MICH., U.S. A.





PUBLISHED EVERY MONDAY. OFFICES: { Corner Pearl and Seneca Streets,  
Over Bank of Attica.  
McFAUL & NOLAN, - - - PROPRIETORS.  
THOMAS MC FAUL. JAMES NOLAN.

#### SUBSCRIPTION.

In the United States and Canada, postage prepaid, \$1.50 Per Year, in advance; remit by Postal Order, Registered Letter, or New York Exchange. Currency in unregistered letter at sender's risk.  
To all Foreign Countries embraced in the General Postal Union, \$2.25 Per Year, in advance.  
Subscribers can have the mailing address of their paper changed as often as they desire. Send both old and new addresses. Those who fail to receive their papers promptly will please notify at once.

#### ADVERTISING.

Rates for ordinary advertising made known on application.  
Advertisements of Mills for Sale or to Rent; Partners, Help or Situation Wanted, or of a similar character One cent per word each insertion, or where four consecutive insertions are ordered at once, the charge will be Three cents per word. No advertisements taken for less than 25 cents. Cash must accompany all orders for advertisements of this class.  
Orders for new advertisements should reach this office on Friday morning to insure immediate insertion. Changes for current advertisements should be sent so as to reach this office on Saturday morning.

#### EDITOR'S ANNOUNCEMENTS.

Correspondence is invited from millers and millwrights on any subject pertaining to any branch of milling or the grain and flour trade.  
Correspondents must give their full name and address, not necessarily for publication, but as a guarantee of good faith.  
This paper has no connection with a millfurnishing house and aims to represent the trade without prejudice, fear or favor.  
Address all communications

### THE MILLING WORLD, BUFFALO, N. Y.

Entered at the Post Office, at Buffalo, N. Y., as mail matter of second-class.

#### SITUATIONS WANTED.

Advertisements under this head, 25 cents each insertion for 25 words, and 1 cent for each additional word. Cash with order.  
Four consecutive insertions will be given for the price of three.

#### SITUATION WANTED.

Head miller with over 20 years experience want to make a change this spring. Address, A. MILLER, 67 Weaver Alley Buffalo, N. Y. 4t

#### SPECIAL ADVERTISEMENTS.

Advertisements of Mills for Sale or Rent, Partners Wanted, Machines for Sale or Exchange, etc., etc., cost 1 cent per word, for one insertion, or 8 cents per word for four insertions. No order taken for less than 25 cents for one insertion, or 50 cents for four insertions. Cash must accompany the order. When replies are ordered sent care of this office 10 cents must be added to pay postage.

#### FOR RENT.

Clinton Mills, at Black Rock, Buffalo, for rent on reasonable terms, recently repaired and put in good order. Apply to CHAS. DANIELS, over 811 Main Street, Buffalo, N. Y. 6tf

#### FOR SALE.

One of the best paying 65-barrel roller mills in Nebraska. Nearly new, and in a locality producing a big surplus of excellent wheat. Address, A. C. PUTNAM, Chadren, Neb. 1114

#### PARTNER WANTED.

A man with capital to take an interest in a new 50-bbl. Roller, Flour and Feed mill. First class water-power. Every thing entirely new and in first class running order. A practical miller preferred. For further particulars address BILLINGS, RED-HEAD & CO, Avoca, Steuben County N. Y. 1215

#### FOR SALE.

A five run stone mill, with five water-wheels. Building 40x54, with five floors. A never-failing water power on Flint River, about 200 feet from R. R. track. Property worth \$15,000. Will sell for less than half that amount. For particulars call on or address RODGERS BROS, Genesee Village, Genesee Co., Mich. 1018.

#### MILL MACHINERY FOR SALE.

One No. 0 Standard Combined Separator, Smutter and Brush Machine; new, best make.  
One 20-Inch Under-Runner Portable Mill, French Buhr Stone, capacity 10 to 12 bushels per hour; new, best make.  
One 14-Inch Vertical Feed Mill; best make, new, a bargain.  
One No. 6 Dustless Separator; new, a bargain.  
One No. 1 Full Rigged Combined Dustless Separator; new, a bargain.  
Four Corn Cob Crushers, right or left hand, driven from above or below, best make; capacity 40 to 60 bushels per hour.  
Three No. 1 Corn Shellers, capacity 200 to 300 bushels per hour; new.  
One No. 2 Purifier. New. Best make. A bargain.  
One 20-Inch Portable Mill.  
One 18-Inch Double Gear Portable Mill.  
For particulars address, FRANK SMITH, care of THE MILLING WORLD, Buffalo, N. Y. 5tf

### FOR SALE CHEAP.

One 36-In. Iron Frame Portable Mill, French Burr Stone, Used about 2 months.  
One 20-In. Vertical Mill, French Burr Stone, Used about 30 days.  
Three Pair 42-In. Old Stock Feed Stones.

FOR PARTICULARS ADDRESS,

**SAMUEL CAREY, 17 BROADWAY, NEW YORK.**

#### FOR SALE

Water-power grist and feed mill for sale, at wharf and railroad, near New York. Established business, \$4,000. J. W. ATWATER, 150 Broadway. 1417

#### VALUABLE ENGLISH PATENTS FOR SALE.

THE COCHRANE ONE BELT DRIVE.

The patents for England issued to the late W. F. Cochrane for improvements in roller mills. Address, J. V. TEETZEL, Hamilton, Ontario, Canada. 1316

#### FOR SALE, EITHER ONE CHEAP.

A circular saw planing and feed mill, 90 acres of good land, two houses, one cost \$1200, best water power in county. 42 H. P. Turbine wheels. Three miles east of Ashtabula, O.

#### OR,

Short systm full roller mill, capacity 2½ barrels of flour per hour, three grades. Buck wheat rig with Cranson shucker. Feed stone, &c. 40 H. P. Erie engine; locomotive boiler, all nearly new, on Main street, Ashtabula, O., two minutes walk from Post Office. Big retail trade. For particulars enquire of L. B. HOWARD, Ashtabula, Ohio. Box 488. 1013.

THE backwardness in coming forward with a programme for the Minneapolis convention is variously construed by millers and others interested. It looks as though the managers do not care to tie themselves down to any particular line of action, preferring to let things drift to suit the convenience of the exclusive clique managing the association in their own interests.

MILLERS throughout the United States will join with us in congratulating the Case Manufacturing Company of Columbus, Ohio, on the expansion of their business and the completion of their magnificent new works, illustrated on another page. They are now settled in their new plant, and already their business forces them to drive it to their full capacity. This is a perfectly natural outcome of their style of doing business, which consists in supplying perfect machines at the lowest possible cost. Address them for their latest illustrated catalogues. It will profit every flour-maker to keep posted on the doings of the Case Manufacturing Company.

AMERICAN citizens are becoming more and more alive to the iniquity of the present situation of railroad affairs. Every intelligent citizen of the Republic is aware that the Canadian railroads have been and now are permitted to pirate the business in this country which the fool Interstate Commerce law forbids our own roads to handle. There is a loud and imperative call for a halt and a readjustment that shall give American private enterprise the business it is entitled to, and restrict Canadian subsidized public enterprise to its own territory. The noisy objection made to the proposal to give American roads their just dues come principally from unnaturalized foreigners and Canadians living along the northern frontier and in New England. There are several millions of these unnaturalized foreigners living in the United States, and their sympathy naturally goes out toward everything foreign. Aside from their bluster and threats, there is no opposition worth mentioning to the plan to retain American business for American roads, and to allow Canadian roads to shift for themselves.

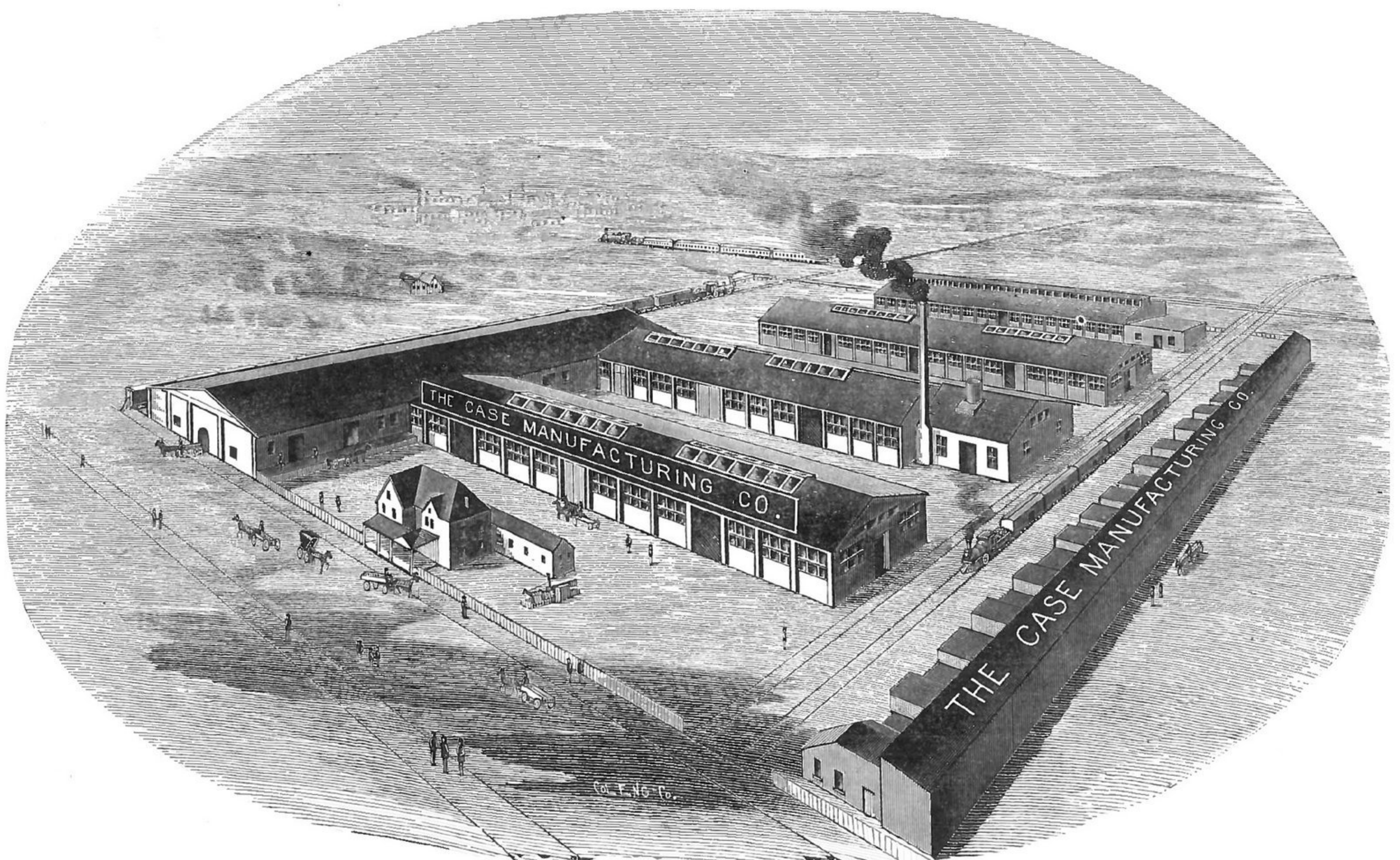
THE beauty of handling Indian wheat in Great Britain may be seen in the rules adopted by the London and Liverpool Corn Trade Associations at their May meetings. They adopted a "new standard of impurities," by which they allow Indian wheat to contain from 3 to 7 per cent. of "impurities." Just what this means may be learned from a simple computation. Supposing the amount of Indian wheat taken by Europe to be 30,000,000 bushels a year, the European purchasers pay wheat prices for and transportation charges on from 900,000 to 2,100,000 bushels of "impurities" from India, consisting of wool, gravel, sand, clay, smut, dead insects and dangerous eggs, dead and live moths, splinters, bits of bone, camel-dung and occasional diamond rings and solid gold jewelry lost in the sacks by the wealthy ryot wheat-growers, who earn 5 cents a day and board themselves. This mixture costs from \$900,000 to \$2,100,000 a year to buy, and the cost of separating it from the wheat costs many thousands more, and after the separation the wheat remaining is a thin, rice-like grain that is unable to stand alone. It is evident that British and other European consumers of Indian wheat have a most unpleasant article in Indian wheat.



### THE HISTORY OF A GREAT HOUSE.

About ten years ago a company was organized in Columbus, Ohio, to build a middlings-purifier which had been invented by J. M. Case, who, on the first few machines, did the greater part of the work himself. This company, starting in a small conservative way, was the nucleus of the Case Manufacturing Company, whose present plant we have the pleasure of illustrating in the accompanying engraving. Starting by building a machine in first-class shape and by fair and honorable dealing with all their customers, by hard untiring work on their machinery and by the same treatment to one and all, this company has worked steadily to the front, achieving their success by the superiority of their machines and the perfection of their milling system, until to-day they are manufacturing almost every sort of machine which is used in flour and corn-meal milling, and they are known and recognized over a large part of the continent as a company whose responsibility is unquestioned and whose machines are the most complete and substantial that are being built to-day. In May, 1889, their works were entirely

securing from skilled mechanics their best productions. Every purchaser of machinery knows the importance of having well-seasoned lumber used, and this has not been lost sight of in the Case works, as they have erected a shed the full length of their grounds, under which the lumber is well seasoned before going to the dry-kiln, from which it enters the shops. Their old machinery being entirely destroyed in their fire enabled them, in equipping their new shops, to purchase the latest improved machines in every particular, thus reducing the cost and assuring the most perfect results. All the wood-working machinery is piped to the engine-room, and by means of fans the shavings and dust are carried directly to the fire under the boilers all the time the machinery is in operation. The shops are heated by a hot-air-blast system, insuring an even temperature and pure air at all times through the cold months. From the description of their plant it is almost unnecessary to assure millers desiring complete mills or special machines, such as roller-mills, scalping-reels, inter-elevator flour-bolts, centrifugal reels, purifiers, aspirators, bran-dusters and other



destroyed by fire, and at that time there were no less than nine car-loads of machinery about ready to be shipped. This was delayed only until temporary arrangements were made which enabled them to carry on their contracts nearly as promptly as before, but of course at an increased expense. Immediately after the fire the capital stock of the company was increased to \$150,000, five acres of ground were purchased and the ground was broken for the new plant. The site of their new works could not be improved, situated as it is on the Pennsylvania and B. & O. R. R., and all the other railroads entering the city from the East, and having over one-third of a mile of side-tracks on their own ground enabled them, with these shipping facilities, to reduce this item of expense to the minimum cost, which can be fully appreciated only by those not so favorably located. The buildings comprising their plant being all one-story and each one separated from the other, their security from fire is now A No. 1, and it gives to nearly two-hundred employes a shop as light as day and perfectly ventilated. This must be recognized as the first and most essential necessity in

machines that, should they purchase from the Case Manufacturing Company, they will secure the latest improved machinery, made by good honest labor, aided by the most complete equipment and constructed of the best material, for the lowest prices, for the reasons mentioned in regard to their plant and shipping facilities. In going into their new quarters this company has not forgotten the importance of their bolting-cloth department, and they have so arranged that they can make and furnish cloths without delay. Likewise their draughting-room enables them to make plans and estimates for all sizes of mills and elevators most promptly. The business of the company was affected but slightly by their fire, and the present outlook is almost astonishing from the fact that the new plant is now being pushed nearly to its full capacity. An idea can be had of their business in the past from the fact that, when they moved into their new plant last November, they then had over 14,000 pairs of rolls on use through the continent. Their success illustrates the old saw of merit forcing prompt recognition.



## POINTS IN MILLING.

MILLERS always find it an expensive and unsatisfactory folly to place good machines in a bad building. What is meant by a "bad" building is one not fitted for the use to which it is put. A "bad" mill building is one that is not properly built for supporting milling-machines. It is too flimsy, too prone to totter, to wobble and to shake. Such buildings are by no means uncommon. I find them occasionally, and in every case the miller who occupies one of these flimsy concerns is a dyspeptic grumbler and an unsuccessful business man.

WITHIN a week I have visited three "bad" mills. I do not care to locate them, as my business takes me that way occasionally, but I will venture to comment on them in a general way, as they are types of a considerable class. The buildings are built too light throughout. The foundations are slender, and all the framing is too light to give solidity. The shafting springs the light support beams downward. The pull of the belts on the machines springs the flimsy floor upward. Ceiling and floor are always trying to meet, and the machinery is dancing a continual reel, both round and hexagonal. The intruder who ventures into one of these mills feels his body quaking from head to foot. The joggle is not only felt, but is even seen, and one not accustomed to the incessant earthquake jiggering finds it exceedingly uncomfortable to be in such a building. Everything seems to be just on the point of going to pieces.

BUILDINGS of this sort are bad for machines. Swift-running and delicately adjusted machines require solid support, if the owner proposes to get the most and the best possible work out of them, and in these flimsy mills such a support is virtually out of the question.

MILL-OWNERS should not aim to "save" too much on their buildings. What they "save" in one direction may be lost over and over again in other directions. Piling up \$5,000 or \$6,000 worth of sensitive machines in a \$500 or \$600 frame shell means economy up to the time of starting up the plant. After that it means constant loss.

CERTAIN inventors and manufacturers of flouring-machines can not get over the fool habit of claiming too much for their machines. Here is one man claiming that his purifier will purify middlings for years "without showing a sign of wear." What does such a claim imply to a practical man? The silk must come into contact with the stock. That means friction. Some of the stock must pass through the silk. That means a gradual inevitable wearing and enlarging of the meshes. How is constant friction and constant passing through of stock to take place without wearing out the silk? Can so delicate a fiber be subjected to constant strain, to constant contact with sharp and rough particles, and to the constant friction necessary in purification, without wearing out? Will not the atmospheric changes affect it? Will not the pasting and heating aid to make it brittle, inelastic and unserviceable?

SIMILAR claims are made for nearly every machine in the list, and a moment of thought will be sufficient to show how ridiculous they are. Metal, wood, leather, fiber, whatever the material may be, will always wear out, despite all foolish claims to the contrary. The miller or manufacturer who would put forth a claim that a buhrstone would run for years, without wearing out or needing redressing, would be considered a madman. Yet that claim would be no more preposterous than the similar one made for the most delicate and sensitive machines and substances used in the modern processes of milling.

GENERALLY, the most surprising claims are made for the most inefficient machines. The maker of a good machine is modest. He knows that the machine must win its way by its own merit, not by his representations or misrepresentations. The maker of the poor machine forgets, or seems

to, that the machine can not live by the force of chin alone. He sets out to talk it into use, and he will make any claim that he may consider necessary to effect a sale.

It is bad enough to hear these absurd claims made in talk, but when they are made in cold print they are doubly bad. I have a collection of old circulars that were brought out years ago to boom certain wonderful machines, and they are curious and instructive reading now, when the wonderful machines they illustrated are forgotten by millers. The claims never helped them. Rather, they hurt the machines. Extreme claims invariably followed by absurd failure made the victims chary. Burned once, they remained away from the fire ever afterwards.

FLOUR-MAKERS as a class are generally indifferent to the crop reports. At least, the average and small miller may be said to be indifferent. This season has been, up to date, one of confusing crop reports, and yet I find scarcely a miller who is concerned deeply over the outlook. They seem to take it for granted that there will be enough wheat for the wants of the country, and they know that it must pass through the mills on its way from the field to the table. They seem to care more for the quality than the quantity of the crop. Said one winter-wheat miller to me the other day: "I don't care a continental if the wheat crop pans out only a third of a crop, if the grain is only good. If it turns out so bad as it did in 1888, down goes my mill, and I'll saw wood or dig ditch until the next crop comes on. No more half-done wheat for me!"

## AN UNPLEASANT BRITISH OUTLOOK.

Recently there has been a good deal said and printed in Great Britain concerning the danger of general distress likely to arise from lack of food supplies in case of war between that country and other European powers. The discussion has given rise to the "starvation theory." The London "Miller" gives the following interesting view on the subject: "It is much to be regretted that Lord Wolseley, who has rendered his country so much brilliant and solid service, should have done her the ill-turn of speaking, as he obviously did speak, at a recent public banquet, on a grave subject, with which he was but imperfectly acquainted. His lordship is reported to have stated, while filling the chair of the Civil Service dinner, that there could be no danger of this country suffering from scarcity during the war, no matter who her opponents might be. The exact words attributed to him are as follows: 'This 'starvation' theory is one vast and complete humbug. There is always a considerable amount of provisions in the country; enough to last from three to eight months without any assistance, and to conceive the possibility of blocking these islands in such a way as to prevent our friends on the other side of the Atlantic from sending in the supplies we should require is as absurd a theory as ever was stated.'

"It is very gratifying to learn that our cupboard is always stored with provisions for at least three to eight months, but it would be desirable to know of what these edibles consist. So far as breadstuffs are concerned, which form the staple of our food, it is, or ought to be, well known that the British Isles raise about one-third of the wheat consumed by their 36,000,000 inhabitants. That is to say, 8,000,000 quarters are grown at home, against 16,000,000 quarters imported from America, Russia, India, Australia and almost every point of the compass. No, the stocks of three to eight months' food so cheerfully described by our 'only general' have certainly little connection with breadstuffs. It was only a week or two since that our entire provision of wheat was reckoned at a bare ten days' supply, and although the store of flour is certainly much larger, 1,000,000 sacks in round numbers, yet a heavy proportion of this is low-grade stock, hardly fit to be baked into anything else than dog biscuits. And these short times in our breadstuffs supply have in recent years been much more common than most persons are aware. It is probable that, striking an average, our stocks of home and foreign wheat and flour would show



five months' supply immediately after harvest, four months' at the commencement of the new year, and not more than two months' as soon as Easter was past. These are mean calculations, but there are, and must be, seasons when, from one cause or another, the national cupboard is dangerously depleted of its staple store.

"As regards the contingency of a blockade of our coasts, it is not probable that any one is likely to argue that it would be possible for one strong naval Power, or even two such Powers, to invest our shores as Paris was beleaguered by the Germans in the winter of 1870-1871. No doubt, even if all the monster guns on all our first-class ironclads were to droop like 'tired lilies,' and even if the hydraulic gear by which these leviathans are worked were all to go hopelessly wrong, it would still be possible for our Transatlantic (business) friends to send us some wheat and flour. But how much should we receive? And to what figures would the prevailing alarm and doubt send the goods which it was contrived to land on our shores? There are many persons in Great Britain who find the present price of bread at five-pence the quarter all but prohibitive of constant and full meals. What would be their condition if the quarter loaf only stood at one shilling, as it did in 1854, when we were at war with a nation which had no navy worth speaking of, and was perfectly destitute of cruisers? In those days, moreover, our population was less by a third, and could depend on a home production of over 12,000,000 quarters. Nor must it be forgotten that marine insurance remained unaffected by the last war in Russia, an experience which unhappily would hardly be repeated under existing conditions. Yet freight and insurance are vital factors in any estimate of our capacity to endure a prolonged contest with a great naval Power, or even with any country capable of seriously harassing our commercial marine.

"It will hardly be contended that our navy is now, relatively to that of France, stronger than it was during the wars with the great Napoleon. But it is on record that, when the Napoleonic era closed, it was found that the French privateersmen had snapped up some 11,000 British craft of all kinds, while against this loss we could only set the capture of 1,000 privateers. If the items of this little account have slipped our memory, they are borne well in mind by our Gallic neighbors, who seem to take a keen delight in rearing up a fleet of what they pleasantly term 'commerce destroyers,' that is swift armed cruisers especially intended, in case of any 'trouble' with Great Britain, to prowl about the ocean highways and capture or sink any merchantman flying British colors. It is probable that in this age of steam the work of convoying might be carried out under more favorable conditions than was possible with sailing vessels, but seeing the heavy tasks which would be thrown on our navy by the patrolling of the Channel and of the Mediterranean, and the care of our coaling stations, it is too likely that the vessels freighted with our daily bread would have mostly to shift for themselves. There are times when a million and more quarters of wheat, consigned from Californian ports, are laboriously rounding Cape Horn; and it is superfluous to insist on the risk which such a fleet would run from the presence on this route of a couple of swift and well-armed cruisers. It would not require many captures of grain-laden vessels bound for our shores to drive ocean freights up to panic prices, and with the rise of freight and insurance the prices of foreign wheat and flour would probably be more than doubled at the very outset of a war. But if this happened in the green tree of its early days, what would happen in the dry and sere leaf of a long continued spell of hostilities between this country and some great naval Power? It is to be feared that by that time the 'starvation theory' would have been reduced to very grim practice.

"That this grave national peril is not without a remedy will not be news to any readers of 'The Miller.' On many occasions it has been pointed out in these pages that by a capital expenditure of some £30,000,000 this country could be provided with a sufficient stock of wheat for one year's consumption stored in suitable and commodious granaries. The cost of keeping up these granaries and replenishing their

stocks would not amount to more than £400,000 a year at the outside, while the first outlay would really be nothing more than an investment, for which the nation would hold security in the shape of buildings and stock but slightly inferior to the amount of the capital laid out. If this undertaking seems too great, then the country has an alternative in the shape of a bounty on wheat large enough to allow our farmers to raise sufficient of that cereal for our domestic consumption. This would, however, in the long run prove a more expensive method of insurance than the erection and filling of granaries, whatever might be said for its social value as tending to restore to our land the almost vanished race of sturdy, healthy agriculturists. But either scheme is perhaps too simple and plain to commend itself to the Government and their rulers; the people of this country, and probably the British people, will be content to follow the example set by the Adjutant-General of the Forces, and to deride as an idle fear this distinct contingency of dearth."

#### MILLING PATENTS.

Among the patents granted June 3, 1890, are the following:

Minor G. Mosher, Wichita, Kan., No. 429,142, a roller crushing-mill, and No. 429,143, a shaking-bolt.

James B. Dobson, Indianapolis, Ind., No. 429,339, a bolting-reel containing the combination of a bolt or a sieve extending into a compartment, said compartment, a shaft carrying brushes or other suitable parts revolving inside of said bolt, and a short conveyer-section mounted on said shaft within the space where the compartment and the bolt communicate, whereby the material is forced from said compartment into said bolt or sieve.

Frederick W. Ihne, Kansas City, Mo., No. 429,529, a grinding-mill.

Geo. B. Howland, Pontiac, Ill., No. 429,589, a grain-meter.

#### THE SUICIDE OF AN INVENTOR.

American millers and engineers will hear with profound regret of the death of the well-known J. A. Arnold Buchholz, the account of which is given by the London "Millers' Gazette" of May 19 as follows:

"Mr. J. A. A. Buchholz, the well-known milling engineer, committed suicide at Clifton (Bristol), on the 13th inst., by shooting himself. He had latterly been in a very depressed state, partly through ill-health, and his friends can assign no other reason for the act. Mr. Buchholz will be remembered by millers in the United Kingdom as having been one of the earliest to introduce roller-milling in this country, and as having been a prolific inventor of milling-machinery. A letter from him will be found in our correspondence columns, which was addressed to the editor of this journal a few hours before his tragic end and which will be read with much interest. His two latest patents, to which he therein refers, will perhaps receive more attention under the distressing circumstances; they certainly merit attention, for they both affect the most important points in milling, the positive adjustment of roller-mills and dressing by means of sieves. The latter patent is probably the more novel of the two and will shortly be published. The late Mr. Buchholz was technical editor of this journal in 1877-78, and in that period strongly advocated the necessity of establishing a national association of millers; he was, indeed, we believe, the first to draw attention to that subject."

Following is the letter referred to in the above quotation. It appears to have been addressed to several journals by Mr. Buchholz, as the London "Miller" received a copy of it. It was written the day before his death and is as follows:

TO THE EDITOR, BRISTOL, May 12, 1890.

SIR: I am about to resign the management of my affairs to other hands. In doing so I wish to address to millers of the United Kingdom a few remarks, which I believe may benefit them as well as my successors, among whom is one who, belonging to their body, has suffered greatly in fortune and otherwise for his staunch faith in the correctness of principles now universally acknowledged, but twenty years ago scouted, if I may be allowed the expression, as heretical in the extreme. I have made two important discoveries: Firstly, the principles of construction for obtaining accurate adjustment of journals in the two directions, which are important to millers in their application to rollers and discs. Secondly, the principle of construction for sifting apparatus, which will probably produce the greatest possible efficiency



of any given sifting material, silk, woven wire, etc., and enable the accurate determination of the efficiency of such surfaces on such materials under any given conditions of working. I fear that I have been greatly hampered in my exertions to popularize these discoveries by certain defects of character, temper and *savoir faire*. As I have suffered, and am suffering, for these defects, I venture to indulge in the hope that they may be forgiven, just as I freely forgive those who may have opposed me with greater rigor than the circumstances absolutely demanded. Now, the following lines purpose to instruct millers how they may profit by my discoveries most easily and most surely. The greatest obstacle in the way of utilizing those discoveries lies in the way of teaching the staff of employes the principle involved and its practical bearings, because extremely small quantities, indeed microscopic quantities, have to be brought under their observation, to which their training has not only not fitted, but almost unfitted, them. Referring especially to rollers, the adjustment in regard one to the other of a pair of rollers to  $\frac{1}{1000}$  of an inch produces a marked effect in the result of grinding, particularly in that form of grinding which I have termed 'cracking,' because the particles under treatment are merely to be cracked to sever the semolina or middlings from their branny adhesions, but are not to be reduced to flour. When rollers are worked to the above nicety, millers will be surprised at the pure quality and the great quantity of semolina, middlings and dunst which may be obtained from branny stuffs now yielding only low-grade flour. To enable millers to secure the results referred to, they must begin with only one or two rollers, fitted according to the principles of construction I have specified elsewhere, and they must see that their men become thoroughly acquainted with the construction and handling of these machines. The best and most effective application of such 'cracking rollers' is to the coarse branny semolina produced in the 'breaks,' which semolina should be separated from the chops for the purpose. They are also very effective for 'cracking' the branny stuffs obtained from middlings-purifiers lying between the clean middlings and the light, fluffy or beeswing brans. Nibbly or sandy stuffs are best cracked with smooth rollers, poorer branny stuffs with fluted or scratch rollers. The experience gained with

one pair of rollers properly set to work will soon show millers how and where others may be applied to advantage.

I remain, sir, yours faithfully,  
J. A. ARNOLD BUCHHOLZ."

BOOMING has not sufficed to save Argentine Republic from the inevitable fate of over-boomed countries. That country paid immigrants to settle in it, and now some of the surplus immigrants are moving out. In one month over 3,000 left for the United States, and other thousands would follow if they had the means to buy tickets for transportation. The Argentine Republic is loaded with debt, and it must depend on far-away markets for the disposal of its produce. Its population is not the kind to build up a country rapidly or solidly. Booming may have obscured the truth for a time, but truth will come to the light in the end, in spite of all misrepresentation.

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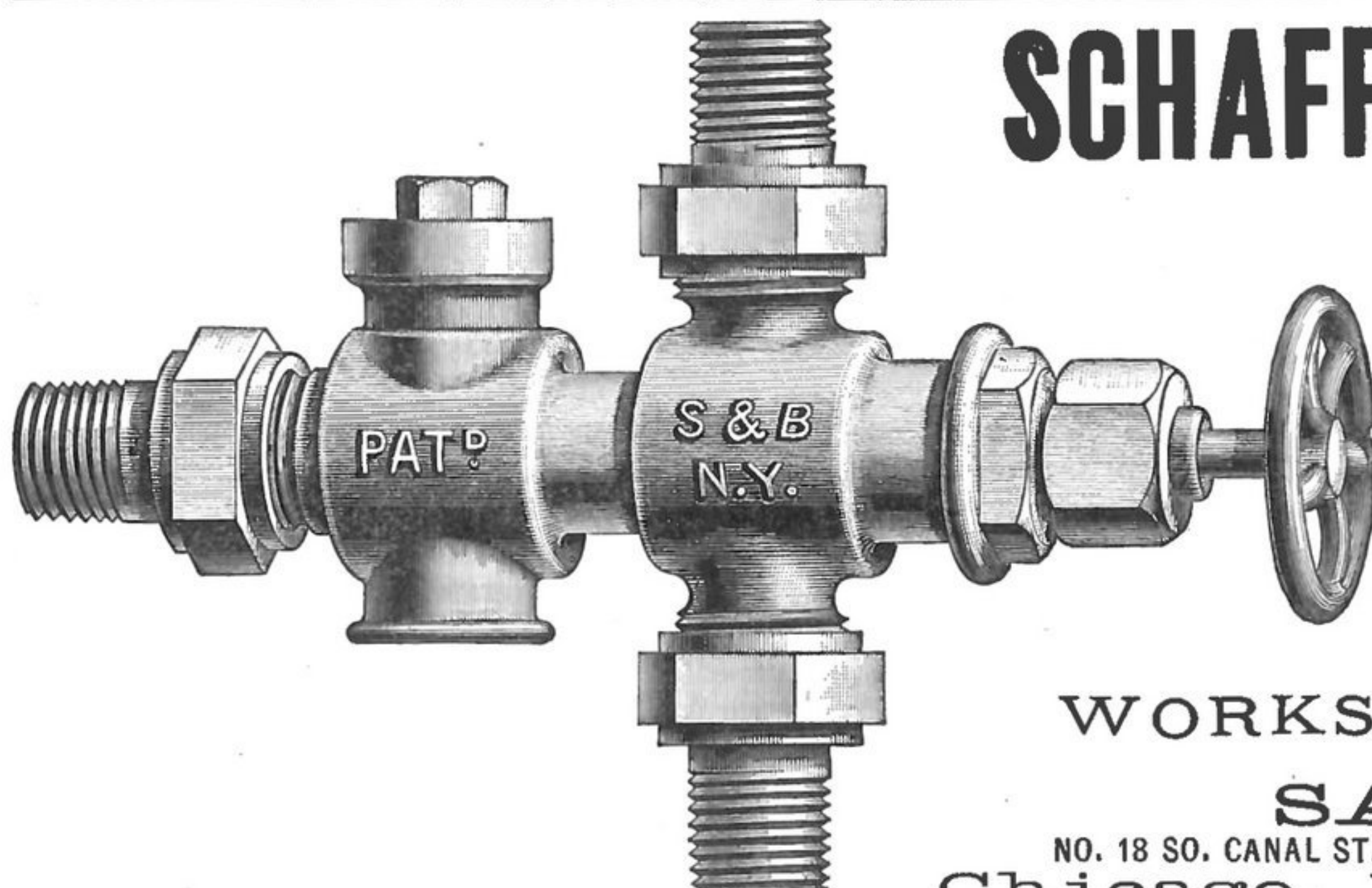
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# Practical Notes

**LUMINOUS PAINT.**—Luminous paint absorbs light during the day and gives it forth at night. The ceiling of an English car painted with the composition lights the vehicle at night. England had the only factory and charged \$3 a pound for the paint, but a new factory in Triesch, Austria, is selling it for 50 cents per pound. It is made of roasted oyster shells and sulphur.

## GENERAL NOTES.

**HENRY A. NOLL**, a German, has constructed a clock which will run 10,000 years without winding. On its dial, besides the time of day, it shows years, seasons, months, weeks, days, festivals and sun and moon changes. The maker demands \$12,000 for the clock.

### COTEMPORARY COMMENT.

For ten months of the current year, 1889 90, July 1 to May 1, the exports of wheat and flour were equivalent to about 95,000,000 bushels. An allowance of 15,000,000 bushels for May and June exports indicates a total of 110,000,000 as approximately the year's export movement to July 1. Reckoning the domestic consumption as 304,000,000 and seeding 53,000,000, the distribution for the year makes a total of 467,000,000 bushels, which, deducted from the crop, 490,000,000, leaves 23,000,000 bushels as the apparent surplus on July 1 in excess of the low point last year, which may be considered as a minimum point.—*Cincinnati "Price Current."*

It seems altogether probable that the United States is about to take steps to cripple the two Canadian transcontinental railways in their competition for through traffic with United States roads. We are not of course so unpatriotic as to desire to see Canadian railroads deprived of any of the traffic which they have succeeded in securing. At the same time we are not insensible to the fact that in their efforts to secure this traffic the Grand Trunk and Canadian Pacific Railway have dealt most unjustly with Canadian shippers, by charging them higher freights than were being paid by American shippers and neglecting to furnish them with the number of cars required and at the time required. In fact, American shippers have received every consideration, while Canadian shippers have received none. Whatever therefore may be the consequences to the Canadian roads of the repressive measures which the United States Government is asked to adopt, the interests of Canadian shippers will not unlikely receive benefit therefrom.—*Toronto "Electrical, Mechanical & Milling News."*

### AN IMPORTANT MINNEAPOLIS MOVE.

According to a report from Minneapolis, Minn., dated June 4, the Pillsbury-Washburn Flour Mills Company, which already owns five mills in Minneapolis and vicinity, having a capacity of 14,000 barrels of flour per day, has secured a lease of the C. C. Washburn Flour Mill Company's mills "A," "B" and "C," with a capacity of 8,500 barrels per day, giving the English syndicate, represented in Minneapolis by Chas. A. Pillsbury as general manager, control of eight mills, with an aggregate capacity of 22,500 barrels per day. The total daily capacity of the flour-mills of Minneapolis is 38,575 barrels. The election of stockholders will take place the last of this month, following which the lease will be executed. Mr. Pillsbury will probably remain at the head of the big concern, and he says that there will be no changes in the working forces of the mills that are to come under his management. But for the publication, he says, the fact that there has been a change of management will not be known. The lease of the Washburn-Crosby Company of the big C. C. Washburn mills will expire Sept. 1 next, when the Pillsbury-Washburn people will at once take hold. Mr. Pillsbury says that over \$5,000,000 cash has been added to

Minneapolis by the purchases and leases of the syndicate which he represents. The mills of the old firm of C. A. Pillsbury & Co. had a daily capacity of more than 10,000 barrels of flour, making it the largest milling concern in the world. At the time of the sale to the English syndicate it took in also the Washburn Mill company, owned largely by United States Senator W. D. Washburn, giving a total capacity of about 14,000 barrels a day. The capacity under the present consolidation is about 22,500 barrels, requiring 100,000 bushels of wheat daily to supply their full capacity. The following is a list of the company's holdings, including the recent acquisitions:

	Daily capacity.
Pillsbury A mill.....	7,000 barrels
Pillsbury B mill.....	2,500 barrels
Anchor mill.....	1,500 barrels
Palisade mill.....	2,000 barrels
Lincoln mill.....	1,000 barrels
Washburn A mill.....	4,200 barrels
Washburn B mill.....	1,300 barrels
Washburn C mill.....	3,000 barrels
Total.....	22,500 barrels
Total capacity of mills in Minneapolis....	38,578 barrels

James S. Bell, the president of the Washburn-Crosby Company, was seen by a reporter, and made the following straightforward statement concerning the reported lease of the C. C. Washburn mills to the London syndicate: "We are informed that Mr. Gest, of the Fidelity Trust Company of Philadelphia, acting as trustee under the will of Gov. C. C. Washburn for his two daughters, Mrs. Peyson and Mrs. Kelsey, has given his consent to leasing the Washburn mills to the Pillsbury-Washburn Company, of London, England, with the privilege of purchasing at a fixed price any time during the period of the lease. The above agreement is subject to the approval of the stockholders of the C. C. Washburn Flouring Mills Company and will be submitted for ratification at their annual meeting on June 30. We have a lease which terminates Sept. 1, and in the event of the stockholders approving the above agreement we will vacate the mills on the above date. With a large trade and a fully organized company having abundance of capital and credit, we hope to continue in the milling business, but do not see how it is possible to do so in Minneapolis. Our company is largely interested in elevators both county and terminal, and therefore can control a large amount of wheat direct from farmers' hands, which can be directed either to Duluth or Buffalo. We do not think it advisable to go into the details of this deal, nor to state to the public our intentions for the future. We have a large business, abundant capital, A No. 1 credit, well established trade, and a well equipped organization, with agencies in all the principal cities of this country and Europe. Our mills, until the late consolidation of the Pillsbury and W. D. Washburn plants under the name of Pillsbury-Washburn Company, were the largest in the world, our annual production running close on to 2,000,000 barrels of flour per annum. We will have a meeting of our company as soon as we have any official information concerning the action of the stockholders of the C. C. Washburn Flouring Mills Company. Until that time we are unwilling to give any further information, except to say that we hope and believe that we will continue in the milling trade, as we have no intention of throwing away a business that has cost years of hard work and anxious thought to build up."

### CATARRH.

#### CATARRHAL DEAFNESS—HAY FEVER.

##### A NEW HOME TREATMENT.

Sufferers are not generally aware that these diseases are contagious, or that they are due to the presence of living parasites in the lining membrane of the nose and eustachian tubes. Microscopic research, however, has proved this to be a fact, and the result of this discovery is that a simple remedy has been formulated whereby catarrh, catarrhal deafness and hay fever are permanently cured in from one to three simple applications made at home by the patient once in two weeks.

N. B.—This treatment is not a snuff or an ointment; both have been discarded by reputable physicians as injurious. A pamphlet explaining this new treatment is sent free on receipt of stamp to pay postage, by A. H. Dixon & Son, 337 and 339 West King street, Toronto, Canada.—*Christian Advocate.*

Sufferers from Catarrhal troubles should carefully read the above.



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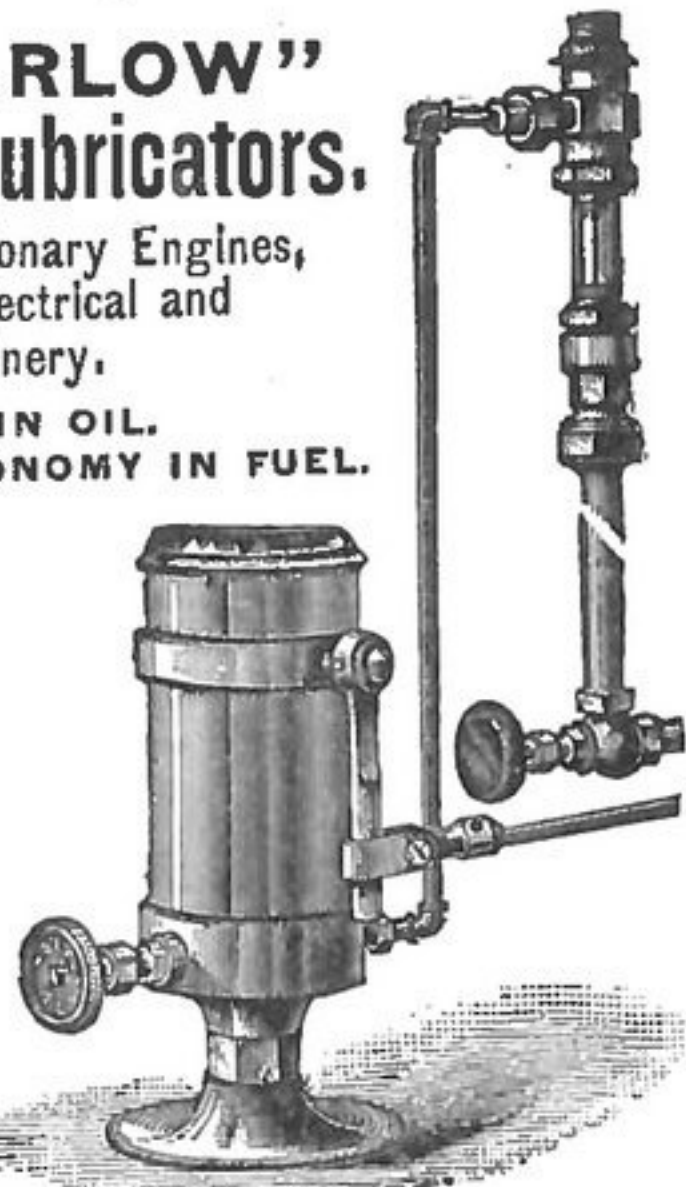
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BEING operated by some moving portion of the engine or machine to be lubricated, the "Harlow Lubricator" starts and stops with the engine or machine being lubricated, without requiring the slightest attention from the engineer or operator, always delivering the oil in any amount from a drop to a constant stream. The cup can be filled at any moment while the engine or machine being lubricated is in operation, without causing any leakage either of oil or steam.

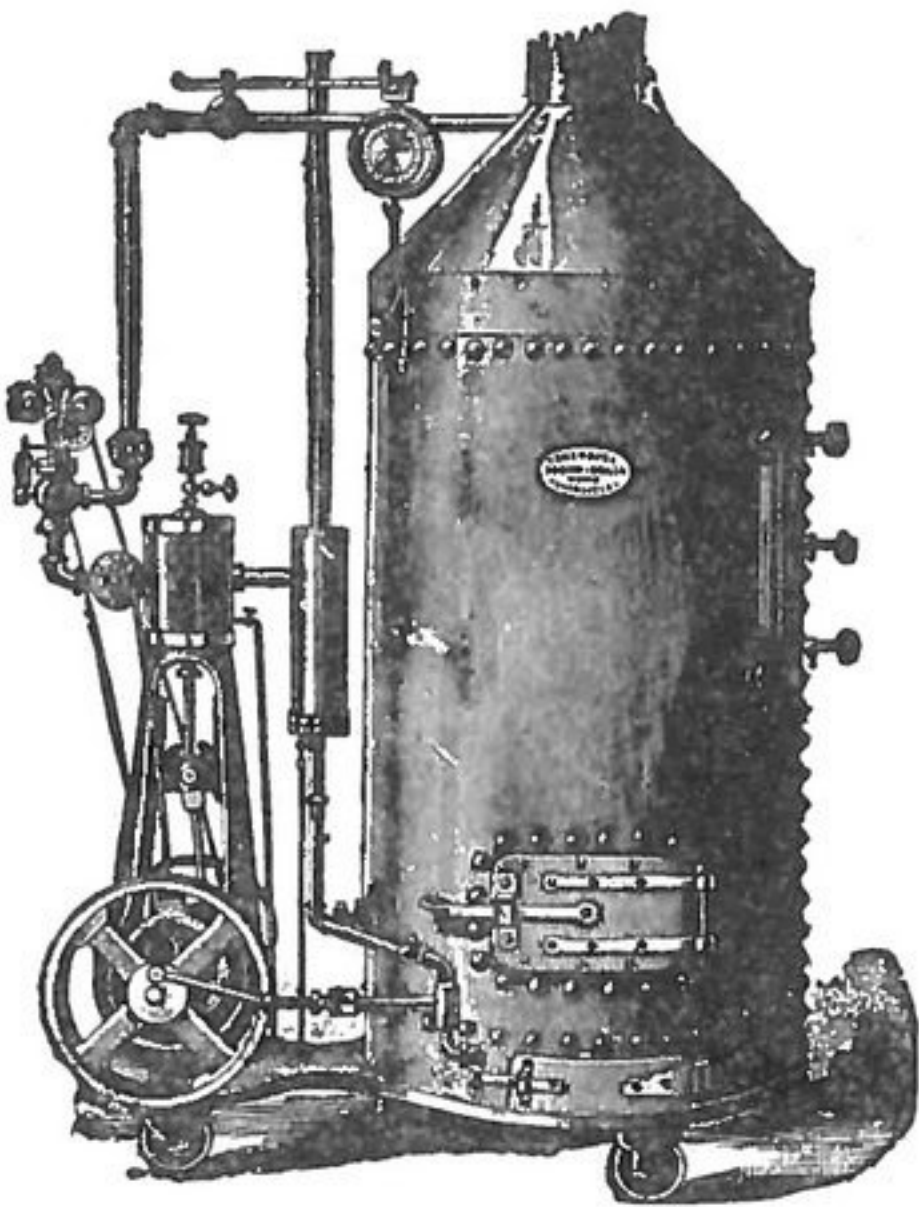
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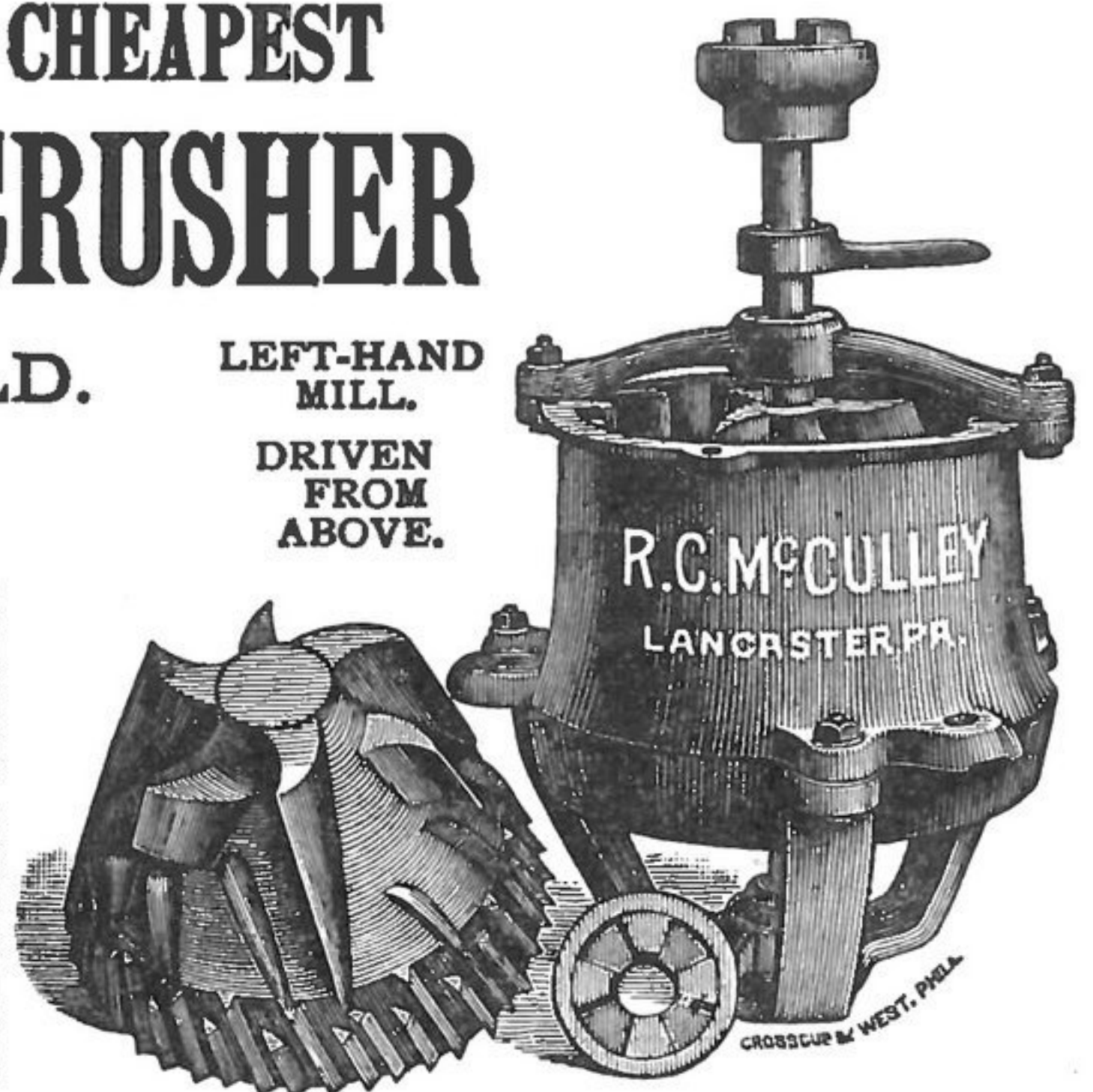
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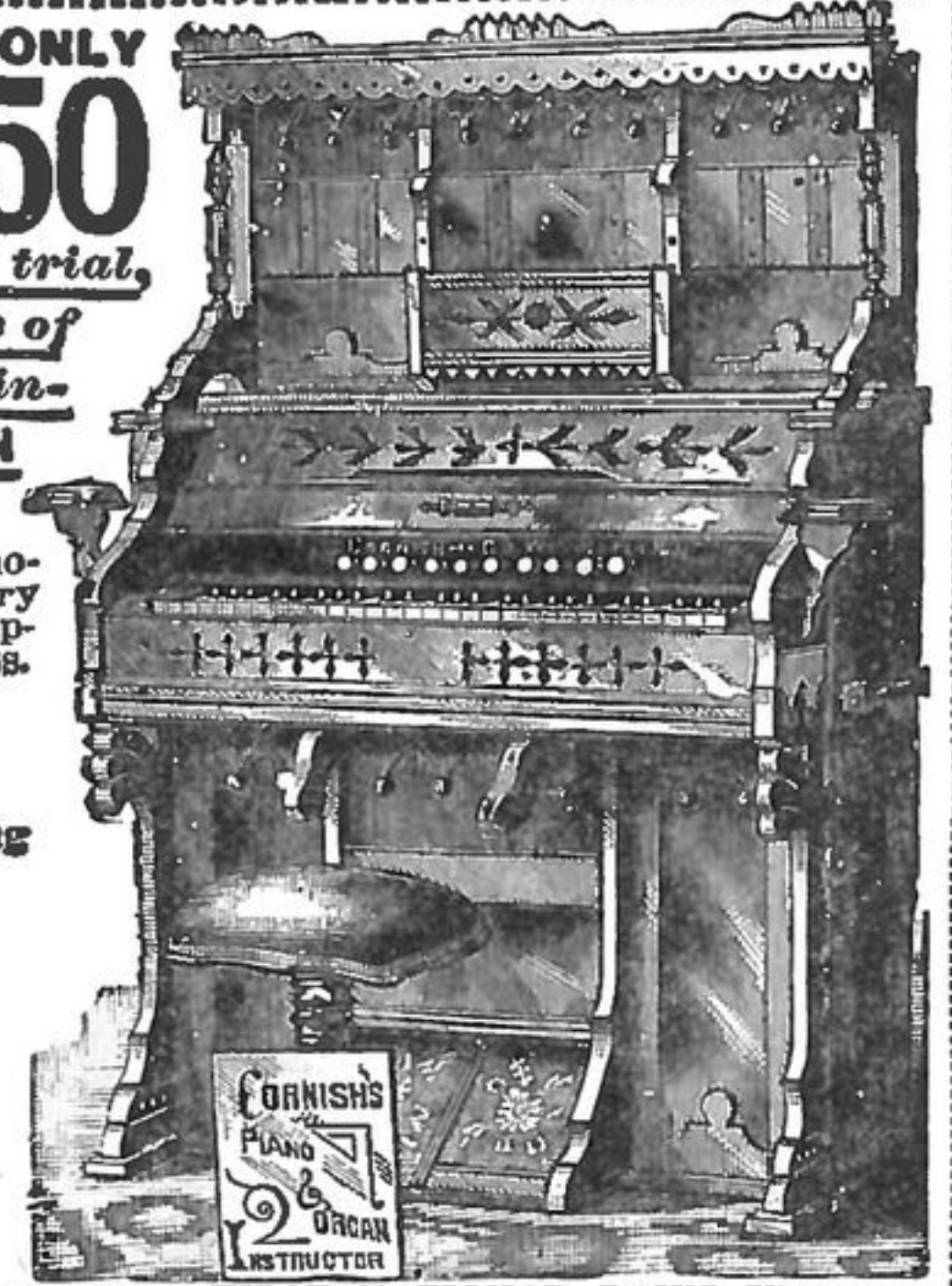
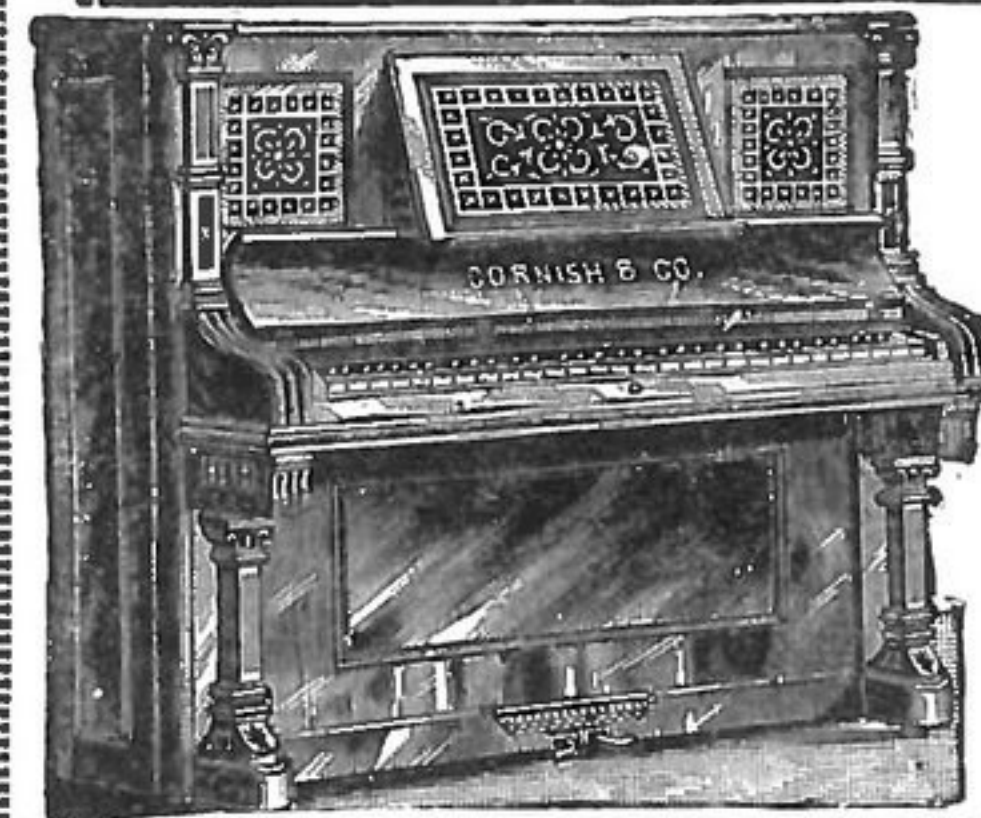
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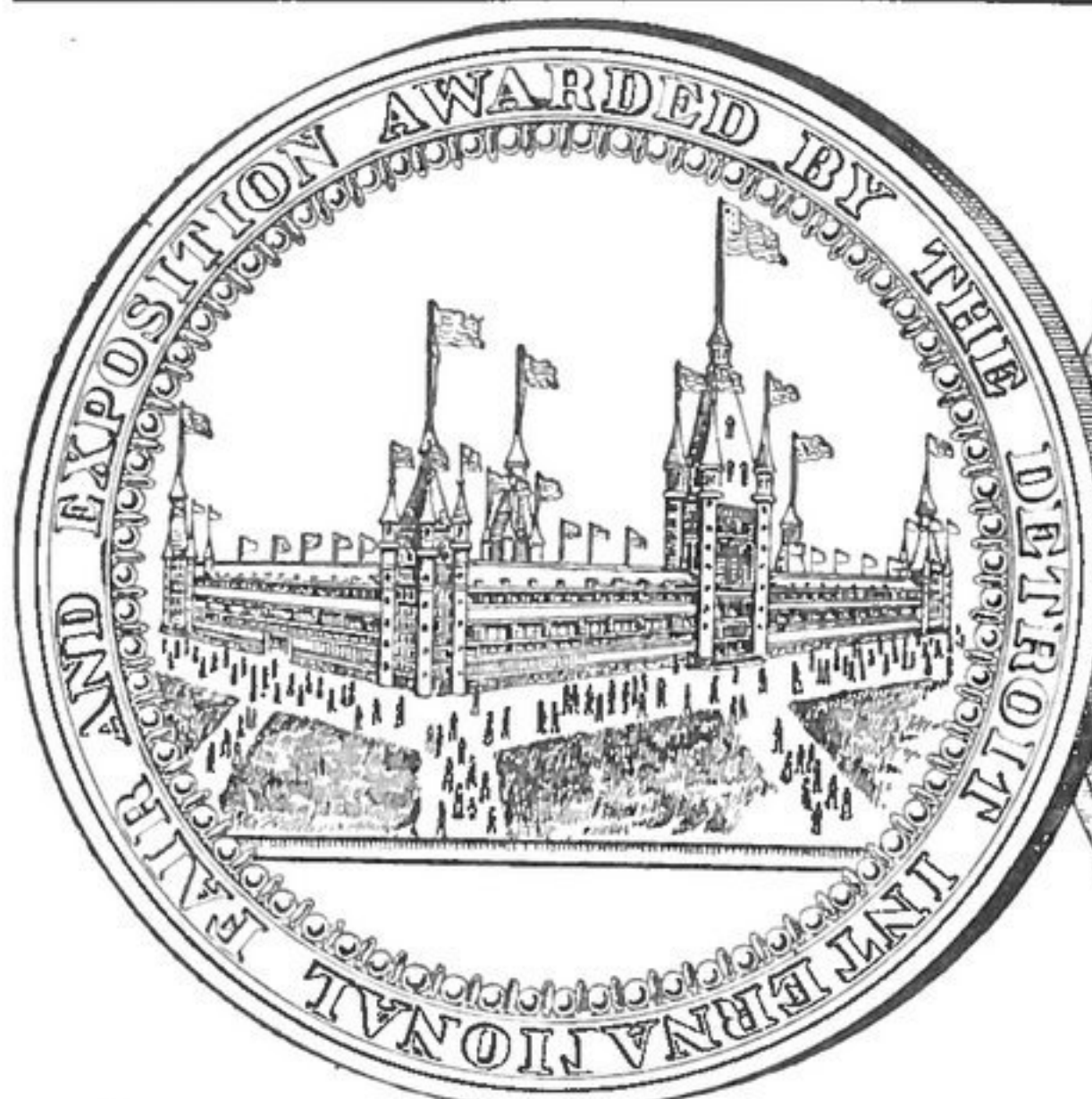
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J. H. Rhyne, Jasper, Ga., starts a grist-mill.  
 M. W. Smart, Leesville, La., built a grist-mill.  
 I. Hodge, Arlington, Tenn., builds a grist-mill.  
 T. Patton, Bon-aqua, Tenn., builds a grist-mill.  
 S. Austin, grain-elevator, Ramsey, Ill., assigned.  
 J. F. Cripps, Newcastle, Va., builds a flour-mill.  
 L. A. Rizer, Keyser, Md., improves his flour-mill.  
 B. B. Gray, Pine Bloom, Ga., improves grist-mill.  
 W. S. Bumpus, Salineburg, Ky., improved his mill.  
 Walter Bros., Woodley, Ala., want grist-mill machinery.  
 Wm. Zollman, Lexington, Va., remodels his Bolivar Mill to rolls.  
 H. E. Hursh, Harrison, Ark., will remodel to rolls; he wants machinery.  
 J. H. Cramer, jr., Piedmont, Md., has built a short-system roller flour-mill.  
 R. U. Kevil & Co., Princeton, Ky., are now owners of the Princeton Mills.  
 M. Simmer, flour-mill, New Prague, Minn., has called a meeting of creditors.  
 Smouse & Wilson, grist-mill, Cumberland, Md., are succeeded by Geo. L. Wilson.  
 Geo. V. Hecker & Co., flour mill, Boston, Mass., now the Geo. V. Hecker Co.  
 Ward, Forbes & Co., flour-mill, Greenfield, Tenn., are succeeded by J. H. Ward.  
 Wilson, Powell & Co., Princeton, Ky., have become the owners of the Banner Mills.  
 J. R. Harkroder, Wytheville, Va., remodels his mill to rolls and wants machinery.  
 Myers & Loving, Washington, D. C., are building a corn-mill and a grain-elevator.  
 W. J. VanKeuren, Chicago, Ill., will at once build a 100,000 bushel grain-elevator.  
 Mr. Sleeper, Waco, Tex., will build a 100,000-bushel grain-elevator in Henrietta, Tex.,  
 A. B. Langford, Jackson, Tenn., will expend \$15,000 in improving his Star Flouring Mills.  
 W. P. Hulse, Limestone, Tenn., will build a 25-barrel roller flour mill; he wants machinery.  
 Peacock, Stokes & Co., grist-mill, Eastman, Ga., are succeeded by C. H. Peacock & Co.  
 Geo. V. Hecker & Co., flour-mill, Savannah, Ga., are succeeded by the Geo. V. Hecker Co.  
 The Mandan Roller Mill Co., Mandan, North Dakota, increased their capital stock to \$100,000.  
 Geo. V. Hecker & Co., flour-millers, Philadelphia, Pa., are succeeded by the Geo. V. Hecker Co.  
 J. W. Betts, Fredonia, Del., is putting in rolls furnished by The Case Mfg. Co., Columbus, Ohio.  
 The Revenna Milling Co. has been formed at Revenna Park, Seattle, Wash., to build a flour-mill.  
 The Case Mfg. Co., Columbus, O., have an order from Edward Johnson, Zanesville, Ohio, for 2 pairs of rolls.  
 J. W. Peck, Mossy Creek, Tenn., is putting in 4 pairs of rolls furnished by The Case Mfg. Co., Columbus, Ohio.  
 The Vienna Improvement Co., Vienna, Ga., capital stock \$50,000, will build a grist-mill; they want machinery.  
 Harper's Ferry, Md., men have formed a stock company to buy and operate the Harper's Ferry Flouring Mill.  
 Wood & Co., Covington, Tenn., sold their mill to the Tipton Flouring Mills, who enlarged to 200 barrel capacity.

The Monte Vista Milling Co., Monte Vista, Colo., sold their flour plant to O. A. Cramer, giving possession on July 1.

Athens, Ga., men are refitting the old Elevator Mill and will operate the plant; the new owners are a strong concern.

M. Simmons, Shakopee, Minn., operating a 250-barrel flour-mill, assigned June 4; liabilities \$150,000; assets \$100,000.

The Farmers' & Laborers' Union, Olmstead, Ky., have formed a \$20,000 stock company to build a flour-mill and grain-elevator.

Taylor Bros., Sycamore, Ohio, have added 2 pairs of rolls for corn-meal and feed, furnished by The Case Mfg. Co., Columbus, Ohio.

J. M. Still and others, Knoxville, Tenn., incorporated the Lonsdale Mill Co., to operate the new flour-mill built by W. B. Ragsdale.

Pleasant Valley, Tex., men incorporated the East Mound & Pleasant Valley Mill & Gin Co., capital stock \$10,000, to build a grist-mill.

Armstrong & Couch, Wilmington, O., are adding 2 pairs of rolls and 1 centrifugal reel, furnished by The Case Mfg. Co., Columbus, Ohio.

J. C. Mansfield, Chattanooga, Tenn., has bought a half interest in the Eureka Mills and will add new meal machinery and increase capacity.

The Rea & Page Milling Co., Marshall, Mo., are adding a Case meal aspirator and purifier, furnished by The Case Mfg. Co., Columbus, Ohio.

The Case Mfg. Co., Columbus, Ohio, have received the contract of Agnes & Cross, New Cumberland, Ohio, for a full roller mill on the Case system.

The Case Mfg. Co., Columbus, O., have an order from Gregory & Sears, Marion, Ohio, for rolls, meal aspirator and purifier for the manufacture of corn-meal.

G. A. Pearce and others, Columbus, Ga., formed the City Mills Co., capital stock \$100,000; they want a roller outfit for a 500-barrel flour-mill and Esopus buhrs for their corn-mill.

The Case Mfg. Co., Columbus, Ohio, have received the contract of Perkins & Moon, Charlotte, Mich., for all the necessary rolls, flour-dressers, scalpels and other machinery necessary for a full roller mill.

H. C. Quackenbush, Valley Mills, N. Y., will remodel his mill to the short system and has placed his order with The Case Mfg. Co., Columbus, O., for all the rolls, scalpels, flour dressers and other machinery necessary to complete the same.

The latest Tennessee State report says of wheat: "Short heads upon slender stems at uneven heights indicate a greatly reduced yield, while the quality of the grain is likely to be inferior. In the wheat-growing counties of western Tennessee the yield will probably be 66 per cent. of an average, in middle Tennessee 58 per cent. and in eastern Tennessee 68 per cent. The corn crop is late and cotton and tobacco look well."

Following is an estimate of the stocks of wheat in northwestern elevators on June 3: Minneapolis public, 7,775,056 bushels; private 1,970,000 bushels; St. Paul 250,000 bushels; Duluth 3,248,651 bushels. Total 13,243,000 bushels. Decrease for the week 74,400 bushels. The *Market Record* gives the stock of wheat in country elevators in Minnesota and the two Dakotas at 2,055,000 bushels, a decrease for the week of 131,000 bushels. This makes the aggregate amount of wheat at the three terminal points and in country elevators 15,298,500 bushels, which is a decrease of 215,400 bushels as compared with May 26.

Says a report from Snow Hill, Md., dated May 31: The army-worm has made its appearance on the Eastern-Shore of Maryland and is playing the dickens with the crops. Their first object of attack was the growing wheat, which they stripped entirely, leaving only the bare stalks. Then they began to prey upon the head, just at the critical time, too, when the grain was forming. Wheat was beginning to recover from the effects of the insects which attacked it in the early spring and gave promise of a fair crop, but George Hayward, one of the largest wheat-growers in the State, says that while he can not at present foresee the result of this attack of the army-worm, yet he estimates that at least one-third of his crop has been destroyed. The oat crop was already in this section an entire failure, having been destroyed by the insect. The farmers are endeavoring to protect their corn fields against the inroad of the pest by ditching around them. J. J. Kurlock had ten acres of timothy and five acres of corn completely destroyed before he could check the attack of the worm. Many other farmers have had similar experience.



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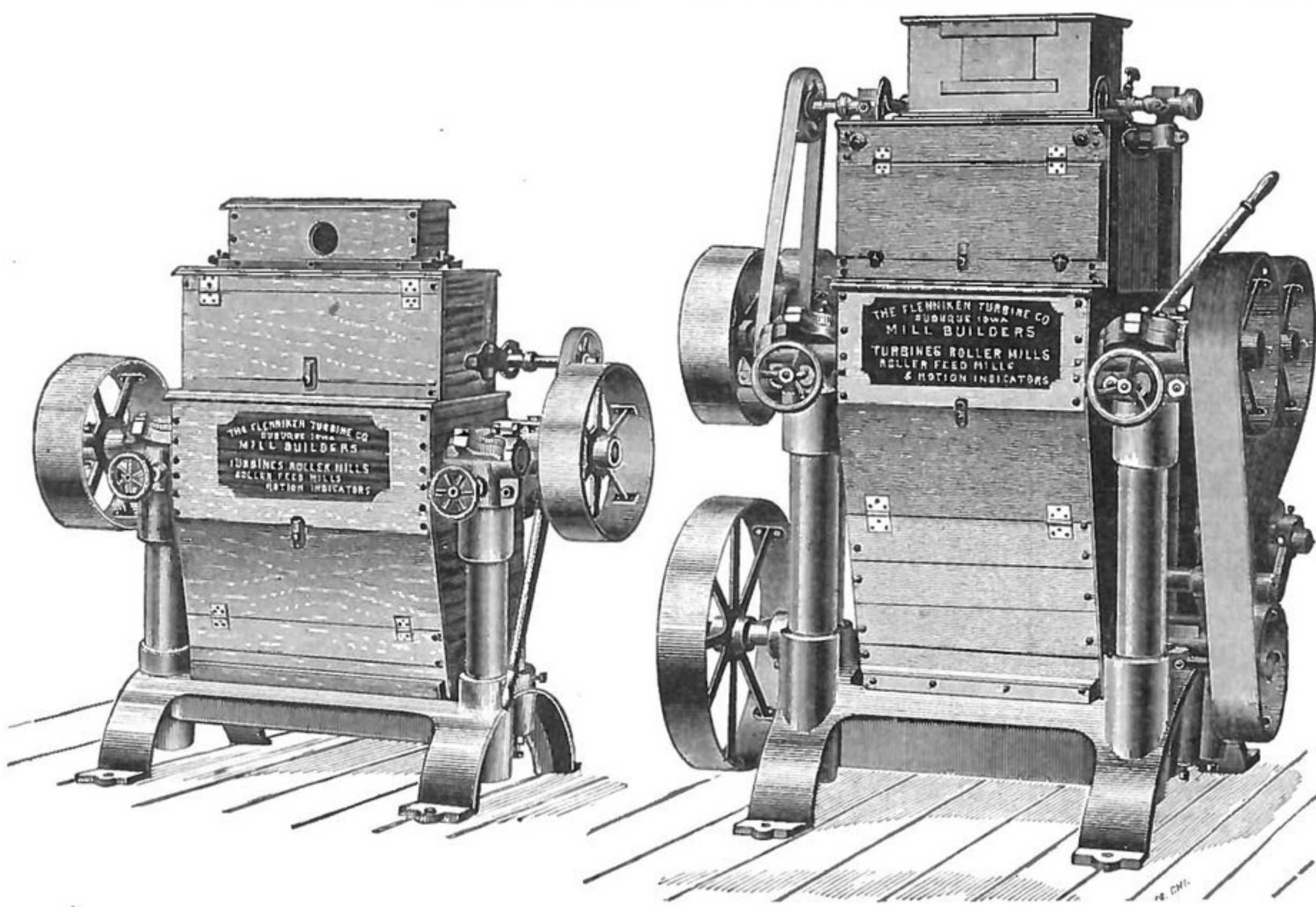


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*Ye jolly millers, one and all,  
Who granulate with burrs,*

A Moses has Come to Deliver You from Egypt. Cease Trying to Make Bricks without Straw. The Red Sea of Expense Has Been Divided.

**The Wilderness of Reductions has Been Shortened. There is Manna in Abundance for Those Who Believe. Listen to the Glad Tidings of Great Joy!**



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Having consummated a bargain with **MR. O. C. RITTER**, the author and patentee of **One Reduction**, which gives us the *exclusive right* to construct mills under his patents, our patrons in the future will receive a license from Mr. Ritter.

## SPECIALTIES!

Graham Roller Mills, Round Reels and Scalpers, Sectional Round Reels, Grain Separators, Motion Indicators. Before buying any of these machines send for our prices and descriptive circulars.

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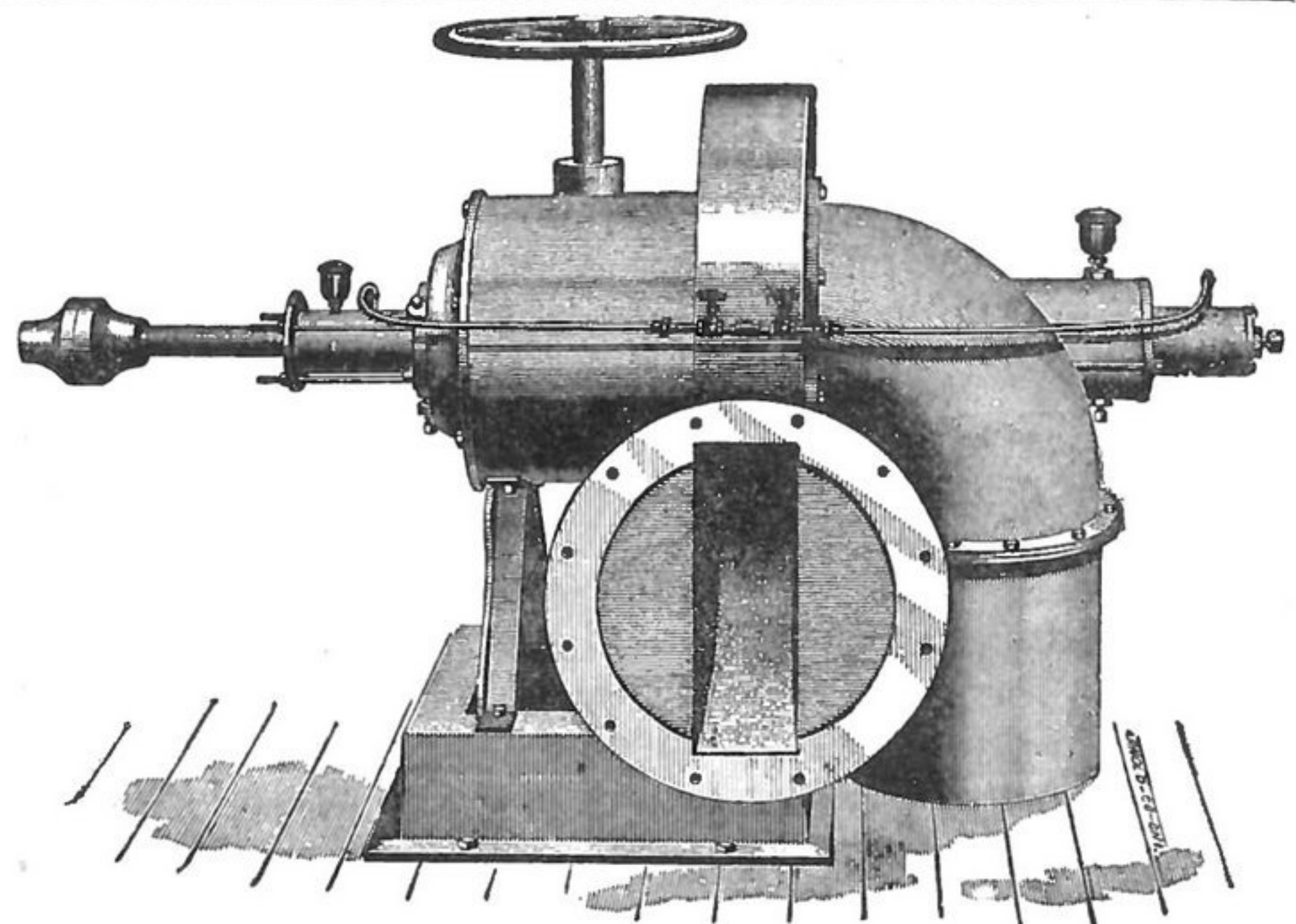
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With or Without Iron Flumes,

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# Flenniken Turbine Co.

DUBUQUE, - IOWA.





## EUROPEAN ECHOES.

THE Chamber of Deputies in Paris, France, on June 5, by a vote of 341 to 170 approved a bill imposing a tariff of three francs on whole maize and five francs on maize flour.

THE National Association of British and Irish Millers will hold their annual convention in Edinburgh, Scotland, July 16th, 17th, 18th and 19th. J. F. White, of Dundee, has been unanimously nominated for the president of the association. Great preparations are making to entertain the association in Edinburgh.

SAYS the London "Miller" of May 19; Such seasonable weather as we have had in the past week has beautified and benefited the country to a great extent, and the season may now rank as one of fair promise. Neither in England nor France are the crops forward, while often fields are seen still a fortnight late for the date of the year.

A REPORT from Berlin, on May 21, stated that several people at Wurzen had been poisoned by eating food made from flour which has been ground on millstones in which lead had been used for "filling up" purposes. Nine persons, five of them children, had died, and more than 20 others were lying ill. The mill has been closed up by the authorities.

THE following superstitious custom still prevails in certain parts of France, especially in the Arrondissement of Boulay. On the day before Epiphany twelve full-sized grains of wheat are placed in a row on the stove. Each grain represents a month in the year. The heat causes the grains to burst and move from their places. Next day the distance which separates each grain from the straight line is measured in order to ascertain which has jumped the farthest. Supposing it to be, for instance, the eighth grain in the row, it is taken to mean that the price of wheat will be highest in the eighth month of the year, that is, in August.

SAYS the London "Millers' Gazette" of May 19: The Russian official crop reports received this week state that the condition of the winter-sown crops, at the middle of last month, was good on the whole, and in some provinces very good. Later advices from commercial houses confirm this report with regard to winter wheat, but state that spring wheat required rain. Much depends upon the success of the latter crop, which is much more largely grown than winter wheat, as the following result of previous crops shows:

	1889.	1888.	Average 1883 to 1887.
	qrs.	qrs.	qrs.
Winter wheat.....	5,000,000	13,382,000	8,352,000
Spring wheat.....	18,750,000	23,365,000	18,754,000

An increase of 75 per cent. in winter wheat, compared with last year, would therefore only make that crop equal to about an average. Meanwhile, so large evidently was the surplus from the crops of 1887 and 1888 that the shipments from Russia continue quite liberal.

EUROPEAN crop conditions in late May were summarized as follows: In France too much moisture was reported but the crops promise very well, and with a favorable May and June an excellent yield of wheat is expected. The wheat trade ruled very firm, although millers continue to buy very sparingly, owing to the bad sale of flour. Foreign wheat was also meeting more attention in the ports, both on the spot and to arrive; stocks were so reduced that the slightest anxiety with regard to the growing crops would lead to very active buying. There were about 1,000,000 bushels afloat for France, exclusive of the Mediterranean, against 800,000 bushels last year. In Belgium the crop prospects were excellent and both wheat and flour were slow. In Germany the crop reports were of a very favorable character. The young plant was, if anything, too forward, especially in Saxony. There has been a decided decline in the Berlin term market. In Holland too much rain was reported. In

Autria-Hungary the outlook was reported very cheerful, with the finest and most genial weather for years, and with every prospect of an unusually large crop of wheat. On the whole, European conditions are decidedly favorable. The only important exception is in Russia, where the spring-wheat regions were suffering somewhat for lack of rain.

### BOTH SIDES.

#### AFAR AFTER LONGFELLOW.

Wheat grain has a bran side outside,  
And it has a flour side inside,  
And the miller handles both sides;  
Every day on this side, that side,  
He must work it inside outside,  
Getting all the flour side inside  
Safely on the flour side outside;  
Keeping all the bran side outside  
Free from all the flour side inside  
Which has been got on the outside  
Of the bran side which was outside  
When the flour side was all inside  
With the bran side coat all outside;  
Should the flour side on the inside,  
Busted from the bran side outside,  
Mingle with the busted bran side,  
Busted from the flour side inside,  
Worthless then would be the flour side  
For the baker, while the bran side,  
Laden with the flour side inside  
Which in grinding had got outside,  
Outside, opposite the inside,  
Too rich would be for the inside,  
Of the porker on the inside  
Of the pig-stye on the outside,  
Turning Mr. Miller's pocket inside  
Outside, till the cash that's inside,  
Inside, opposite the outside,  
Melts away in thin air outside;  
Thence the thusness of the inside;  
Hence the howness of the outside;  
Hence the miller keeps the inside  
Flour side unmixed with the outside  
Bran side, that he may stay inside,  
Ever inside, not thrust outside;  
That his pockets turn not inside  
Outside; that the ducats inside  
Vanish not in thin air outside.  
All ye millers, keep the flour side  
Inside separate from the outside  
Bran side; let no inside flour side  
Wasted be with bran side outside;  
Send the bran side to the feed-pile;  
Send the flour side to the flour-barrel;  
Strictly separate the flour side  
From the low-grade, red-dog bran side;  
And when all the inside's outside,  
When no outside's mixed with inside,  
Then your pockets on the inside  
Bulge with gold drawn in from outside.  
Keep the outside bran side outside;  
Work the inside flour side outside;  
Keep this rule your noddle inside:  
"Outside, outside! Inside, outside!"  
Then the wheat grain with its two sides,  
Flour side inside, bran side outside,  
Makes you happy inside, outside!

Bang.

Duluth, Minnesota, May 28, 1890.

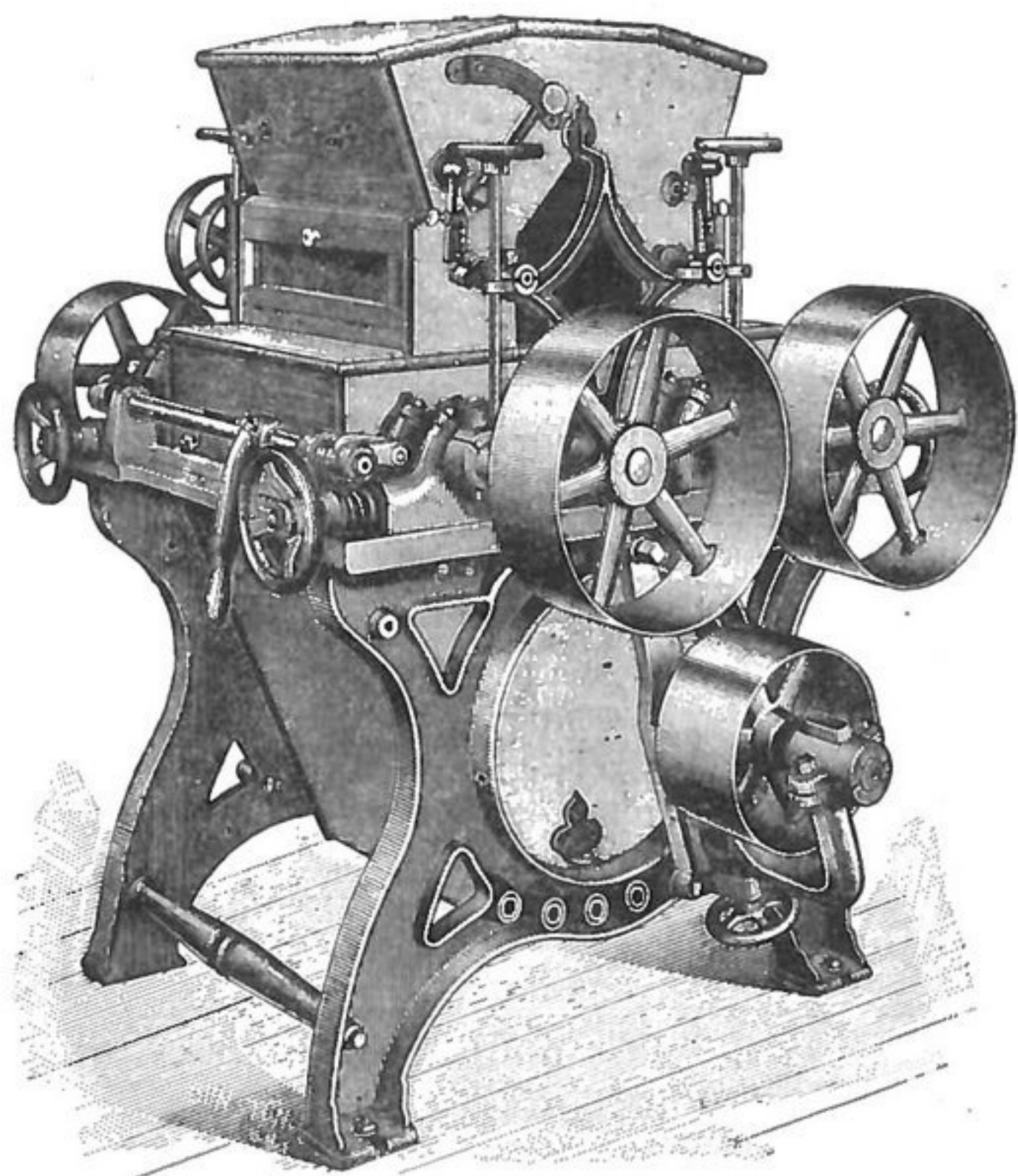
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#### HOSPITAL REMEDIES.

What are they? There is a new departure in the treatment of disease. It consists in the collection of the specifics used by noted specialists of Europe and America, and bringing them within the reach of all. For instance the treatment pursued by special physicians who treat indigestion, stomach and liver troubles only, was obtained and prepared. The treatment of other physicians, celebrated for curing catarrh was procured, and so on till these incomparable cures now include disease of the lungs, kidneys, female weakness, rheumatism and nervous debility.

This new method of "one remedy for one disease" must appeal to the common sense of all sufferers, many of whom have experienced the ill effects, and thoroughly realize the absurdity of the claims of Patent Medicines which are guaranteed to cure every ill out of a single bottle, and the use of which, as statistics prove, has ruined more stomachs than alcohol. A circular describing these new remedies is sent free on receipt of stamp to pay postage by Hospital Remedy Company, Toronto, Canada, sole proprietors.



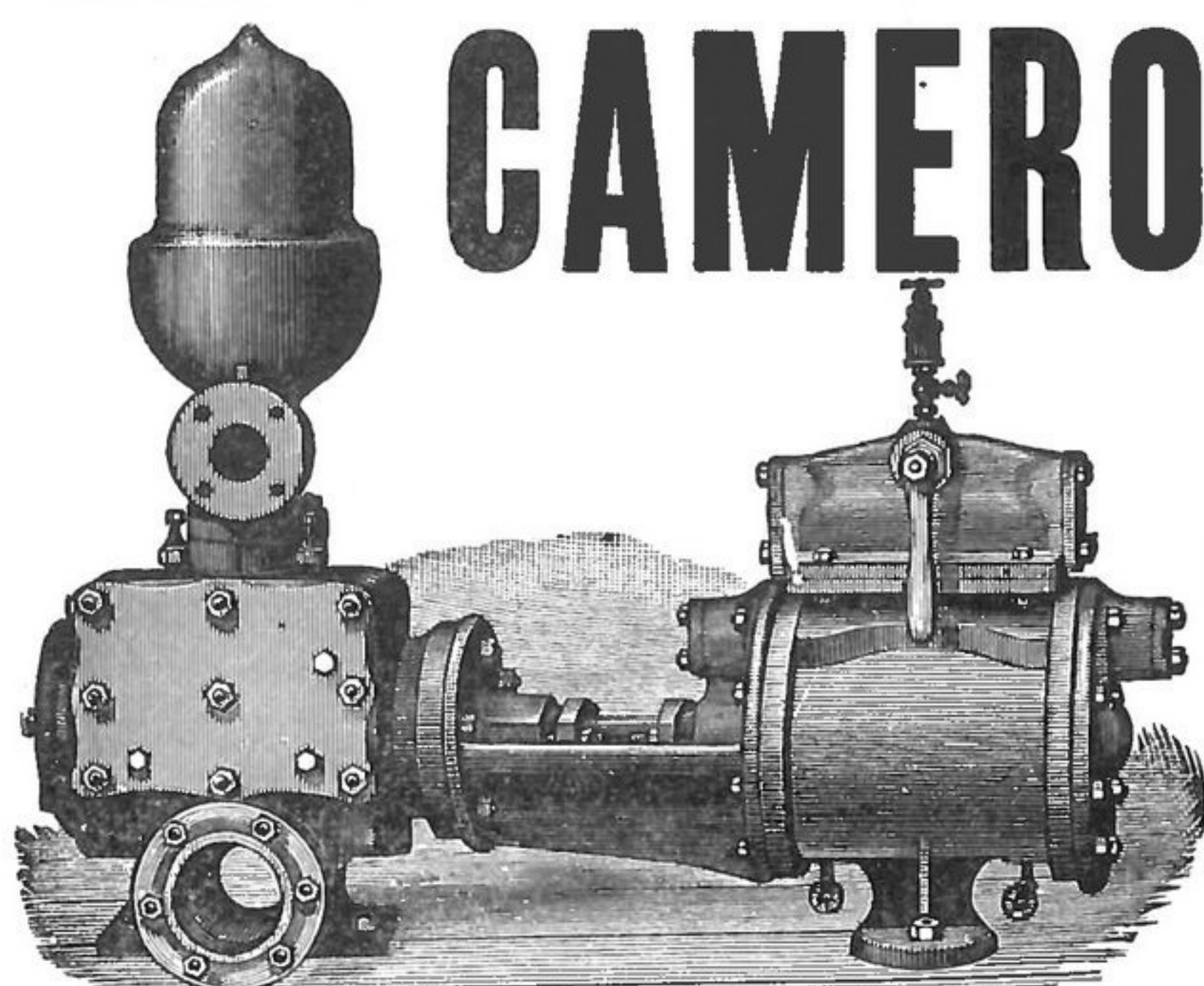


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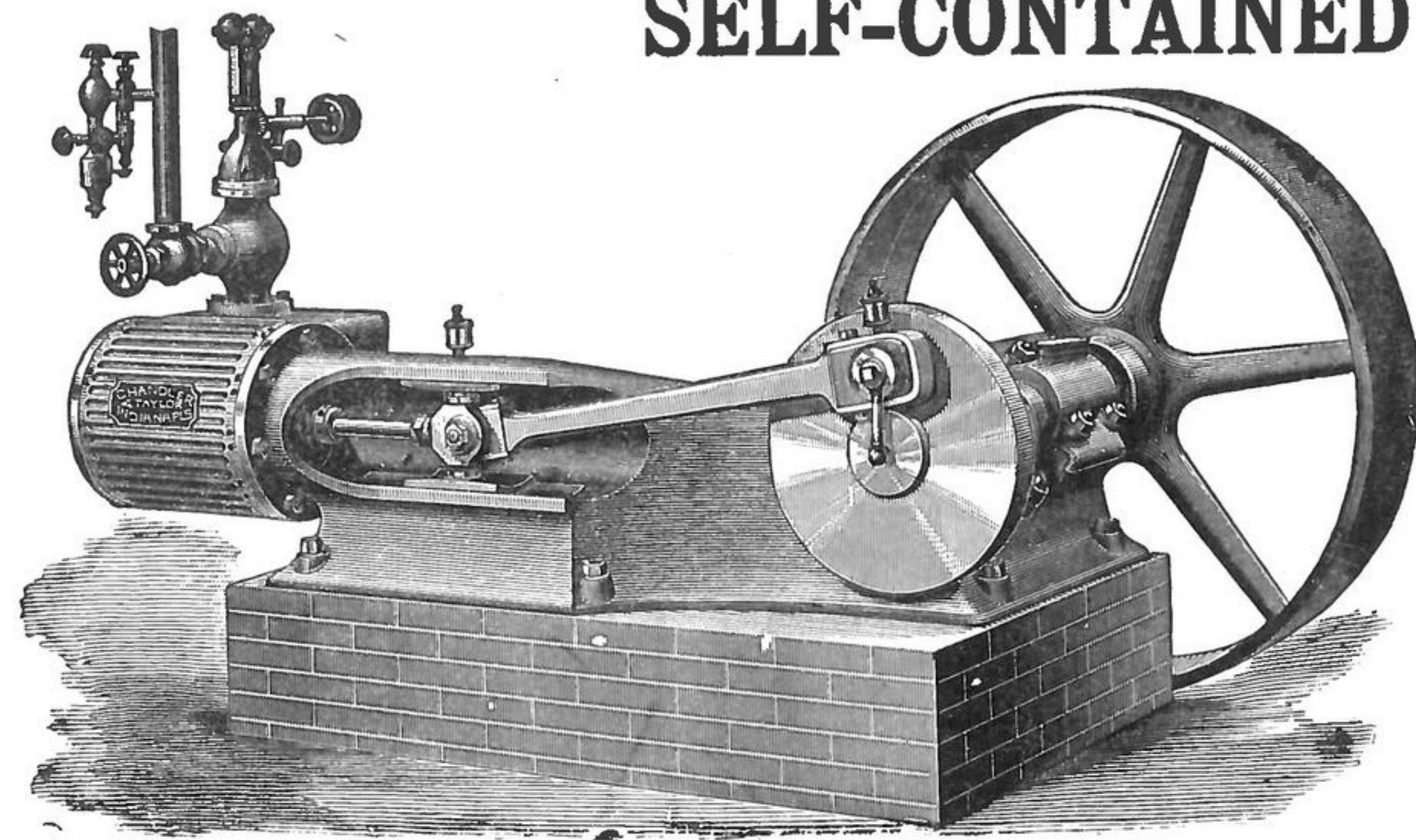
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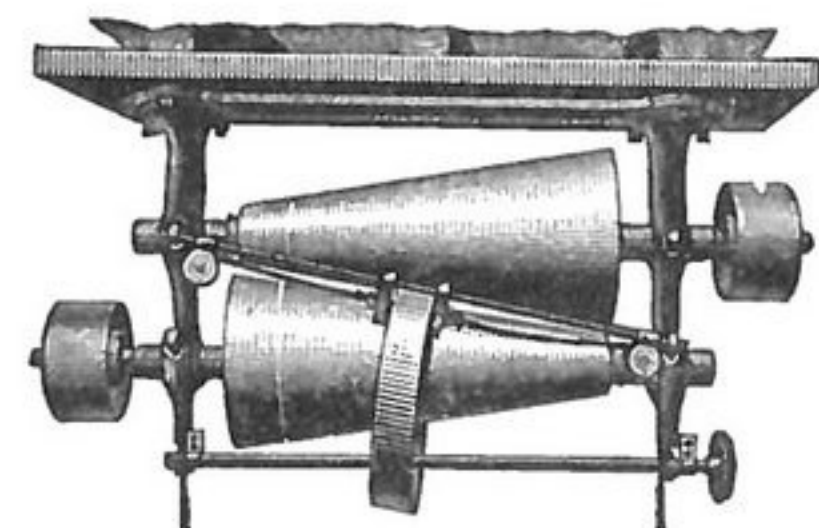
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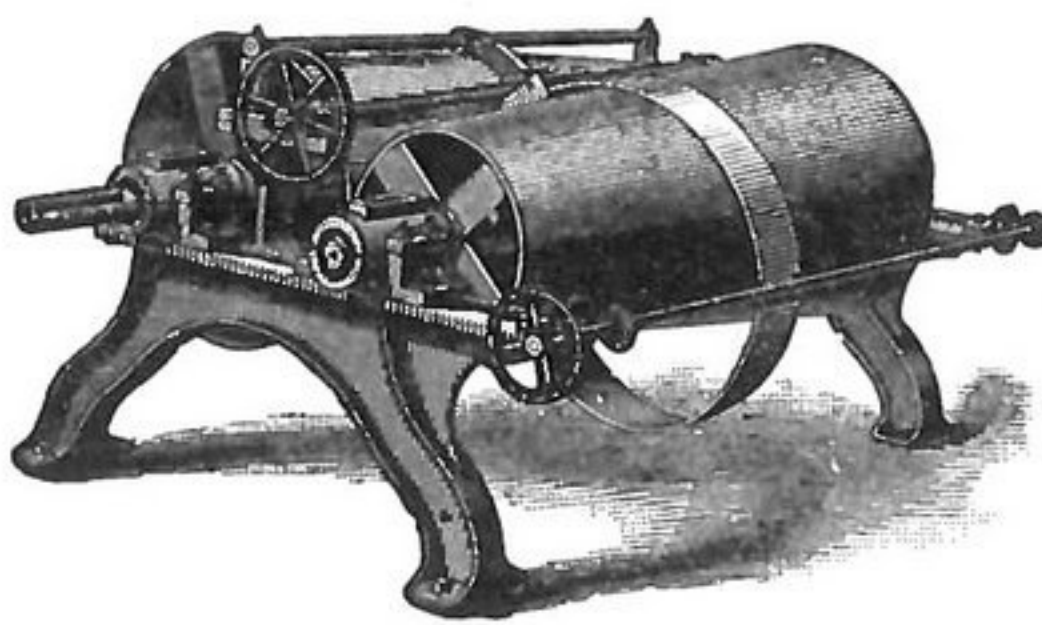
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CAN SAVE TIME  
AND TROUBLE  
AND CASH

BY USING  
**BARLOW'S**  
PATENT  
MANIFOLD  
**SHIPPING**  
BLANKS. SEND FOR  
SAMPLE SHEET & PRICES  
BARLOW BROS. GRAND RAPIDS, MICH.





OFFICE OF THE MILLING WORLD,  
BUFFALO, N. Y., June 7, 1890.

Saturday of last week brought confused markets after the Decoration Day recess. Chicago longs realized freely, and a break was prevented by worse winter-wheat crop reports, Missouri sending in a report placing the condition 5 per cent. lower than a month ago. In New York June wheat closed at 93½c., with Atlantic port receipts 179,757, exports 133,247, and options 1,200,000 bushels. June corn closed at 40c., with receipts 308,819, exports 167,201, and options 480,000 bushels. June oats closed at 32½c., with receipts 437,517, exports 68,700, and options 100,000 bushels. Wheat flour was dull and unchanged throughout the list. Receipts were 9,216 sacks and 45,994 barrels, and exports 17,811 sacks and 7,968 barrels. All the minor lines were unchanged and quiet. The reports on wheat in Illinois and Missouri indicated only a half crop.

Monday brought higher markets, with considerable activity and excitement, on mixed reports and manipulation by Hutchinson, who seems to have control of the markets and to make them move as he wishes, regardless of crop conditions or anything else. June wheat closed at 94¼c., with receipts 46,757, exports 56,339, and options 4,000,000 bushels. Missouri reported winter wheat crop condition 7 per cent. lower than a month ago, and Illinois 6 per cent. lower. The bears professed to disbelieve all unfavorable reports, but many dealers were inclined to look for a sharp increase in prices in the near future. June corn closed at 40¼c., with receipts 224,898, exports 129,738, and options 960,900 bushels. June oats closed at 32¾c., with receipts 354,475, exports 317,403, and options 240,000 bushels. Wheat flour was dull, with buyers 10@20c. below sellers. Receipts were 16,084 sacks and 35,491 barrels, and exports were 10,959 sacks and 24,468 barrels. The minor lines were quiet and featureless.

Tuesday brought dull and stronger markets on Chicago manipulation. Bad reports on crop conditions were not wanting, but, the thicker they came, the less the markets were influenced by them. June wheat closed at 95¼c., against 80½c. on the same date last year. Receipts were 26,578, exports 58,157, and options 2,500,000 bushels. Cable reports from Europe indicated that European dealers are inclined to believe the bad crop reports from the wheat States and are shaping their plans accordingly. June corn closed at 40¾c., with receipts 292,217, exports 327,335, and options 1,120,000 bushels. The reports on corn-crop conditions were decidedly bullish. June oats closed at 32½c., against 27½c. on the same date last year. Receipts were 81,802, exports 66,429, and options 250,000 bushels. Wheat flour was decidedly weak on all grades of springs, and especially patents, with no disposition on the part of buyers to take any advantage of the desire of receivers to sell at concessions quite material, except bakers' extras, on which there were some bids for lines at 20c. under the late reduction of 10@15c. in those flours, or 25c. from the prices of two or three weeks ago; while there were sellers and only car-lot buyers of patents at \$5.25 for standards, though broken lots of fancy brands were still retailed at \$5.40@5.50. One authority made the New York stock of flour about 11,000 more than a month ago, wholly of spring, which increased 23,750; while winter decreased 13,750 barrels; total spring being 106,125 and 78,400 winter, or 184,500 against 173,500 last month and 160,300 last year. Receipts included 2,900 sacks and 37,780 barrels, and exports 24,410 sacks and 32,232 barrels. The minor lines were quiet and featureless generally.

Wednesday brought irregular markets, opening weak and advancing on manipulation by Hutchinson. Crop reports made Kansas better and Missouri worse on wheat. June wheat closed at 94c., with receipts 13,201, exports 8,575, and options 2,760,000 bushels. June corn closed at 40¾c., with receipts 195,266, exports 257,124, and options 960,000 bushels. Rye grain was quiet at 58½@60¼c. for State. Barley was quiet at 60@72½c. for Canada. Malt was in better demand at 85@90c. for city-made Canada, 80@85c. for country do, 75@78c. for six-rowed, and 68@70c. for two-rowed asked. Mill-feed was dull and irregular at 75c. for 80-lbs. in lines, 80c. in lots, and 80@82½c. for 40 and 60-lbs., with little doing. Quotations: 75@85c. for both extremes, chiefly 80@85c. all kinds.

Wheat flour was dull and lower on all springs, under free spot and to arrive offerings, as there were over 300,000 bbls. of flour at Duluth on Saturday last held by Minneapolis millers alone, excepting what is held by the Duluth Mill, against 280,000 the week before. Exporters had some orders at old prices for spring bakers' and superfine winters, which were accepted at about 6d. under what has been asked in New York for some time. Receipts included 6,450 sacks and 28,819 barrels, and exports 24,378 sacks and 2,843 barrels. Rye flour was dull and heavy at \$3.00 @3.25. Corn products were active at the following quotations: Coarse bag meal 78@80c.; fine yellow 95c.; fine white \$1.00; Southern and Western in barrels \$2.30@2.40; yellow granulated \$2.25@2.60; white do \$2.65@2.70; flour \$2.75@3.20; Brandywine \$2.50.

The following shows the amount of wheat and flour, together with the amount of corn on passage to United Kingdom, for ports of call or direct ports for the weeks mentioned:

	1890. June 3.	1889. June 4.
Wheat and flour, qrs....	2,976,000	1,528,000
Corn, qrs.....	672,000	462,000

The following shows the amount of wheat and corn on passage to the Continent for the past week and for the same week last year:

	1890. June 4.	1889. June 4.
Wheat, qrs.....	896,000	349,000
Corn, qrs.....	347,000	109,000

	Qrs.
Shipments India wheat to U. K. ....	60,000
do do Continent..	20,000

The imports into the United Kingdom for the past week, the previous week and for the same week in previous year were as follows:

	1890. June 3.	1890. May 27.	1889. June 4.
Wheat, qrs.....	198,000	249,000	202,000
Corn, qrs.....	253,000	192,000	176,000
Four, bbls.....	190,000	122,000	189,000

Thursday brought no changes. June wheat closed at 95¾c., with receipts 6,400, exports 36,000, spot sales 58,000, and options 3,136,000 bushels. June corn closed at 41¼c., with receipts 7,000, exports 117,000, spot sales 118,000, and options 750,000 bushels. June oats closed at 33¾c., with receipts 67,000, spot sales 126,000, and options 1,150,000 bushels. Wheat flour was unsettled and more active, with receipts 29,000 and sales 21,000 packages. The prices realized were as follows: Low extras \$2.50@3.00; city mills \$3.25@4.55; city mills patents \$5.00@5.50; winter wheat low grades \$2.50@3.00; fair to fancy \$3.15@4.90; patents \$4.50@5.50; Minnesota clear \$3.60@4.50; straights \$3.90@5.00; patents \$4.45@5.45; rye mixtures \$3.60@4.30; superfine \$2.00@2.85. The other lines were featureless. Minneapolis turned out only 92,770 barrels of flour last week, the smallest weekly production since August, 1889.

#### BUFFALO MARKETS.

WHEAT—Very little was done here. There were sales of 500 bushels of No. 1 hard at 98c. and 5,000 bushels No. 1 Northern at 96c., all in store. No other sales of spring wheat were reported to-day. A sale of 2 cars of No. 2 red at 94½c. was reported, but holders generally asked 95c. CORN—The market was dull, although prices were higher. Sales were reported of 17,000 bushels of No. 2 yellow at 38c and some at 37¾c. all in store; No. 3 yellow at 37¾c; 18,000 bushels No. 3

corn at 36¾c., 1 car at 37c., and No. 2 corn at 37½c. OATS—The market is strong, and sales were made at 32¼@32½c. for No. 2 white in store and 33c on track, and 55,000 bushels No. 2 mixed at 31¼c in store RYE—Prices in this market are nominal at 58c. for No. 2 in store BARLEY—The trade in barley has about closed. Quotations are nominal at 63@65c. for No. 2 Canada and 58@60c for No. 3 do. OATMEAL—Akron, \$5.45; Western, \$5.25 per bbl.; rolled oats, in cases, 72 lbs., \$3.25. CORNMEAL—Coarse, 75@85c.; fine, 80@90c.; granulated, \$1.50 per cwt. MILL-FEED—City-ground coarse winter, \$14.50@15.00 per ton; fine do. \$14.50@15.50; finished winter middlings, \$15.00@16.00; coarse spring do, \$14.00@14.50.

#### FLOUR MARKET.

	Spring Wheat.	Winter Wheat.
Patents.....	\$6.50@7.00	Patents .. \$5.50@6.00
Straight.....	5.25@5.75	Straight... 5.25@5.75
Bakers.....	4.75@5.25	Clear ... 5.00@5.50
Red Dog. . .	2.50@3.25	Low grades . 3.00@4.25
Rye flour . .	3.75@—	Graham . . . 4.50@—

Retail prices 50c per bbl above these quotations.

A Minneapolis report of June 1 says that there is great danger that the flour agreement that has been in force between the Minneapolis millers and retail grocers for five years will be cancelled on the part of the millers, owing to repeated violation on the part of the grocers. The agreement expressly stipulated that the dealer shall not handle flour manufactured by any miller who is not a party to the contract. But of late it is said many dealers have been selling outside brands, and not only that, but forcing the trade on them to the exclusion of those made in Minneapolis, because affording a better profit. One more effort is to be made to bring the dealers into line. A thorough canvass of the city is to be made within the next three or four days, for the purpose of getting dealers to sign the agreement anew and to convince them of the folly of violating their pledges. Should the millers withdraw from the agreement flour will be sold without any profit at all as before.

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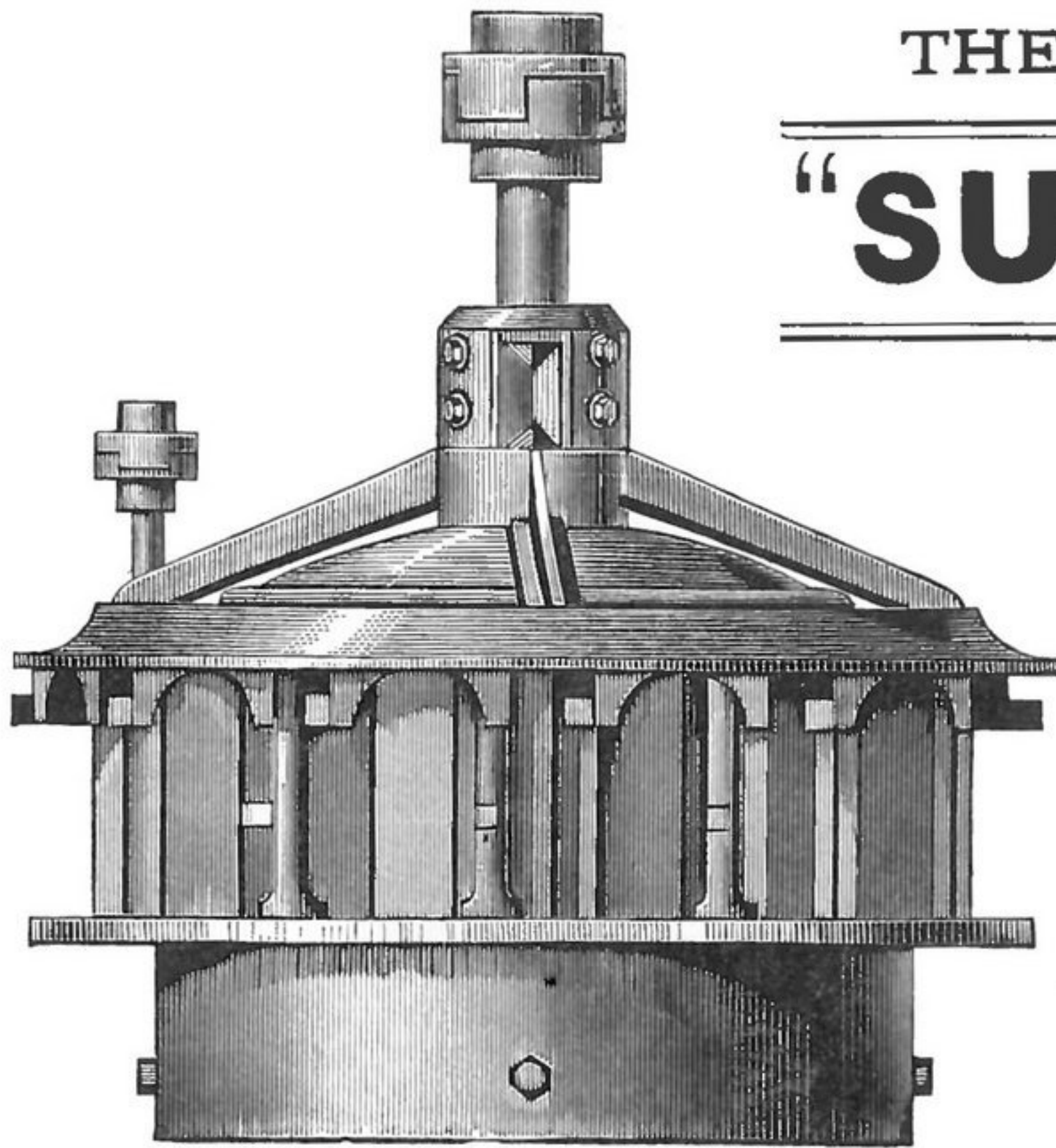
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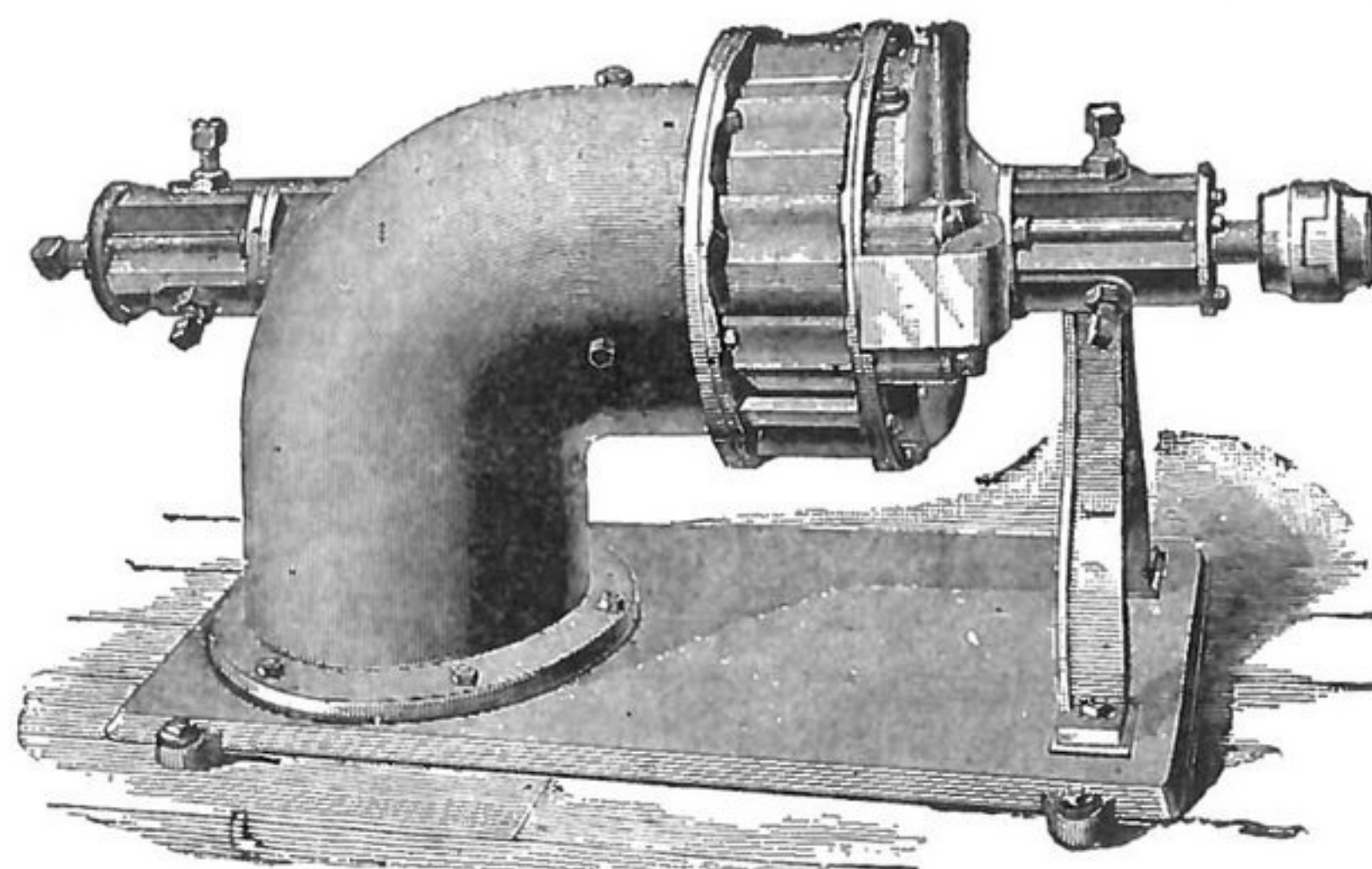
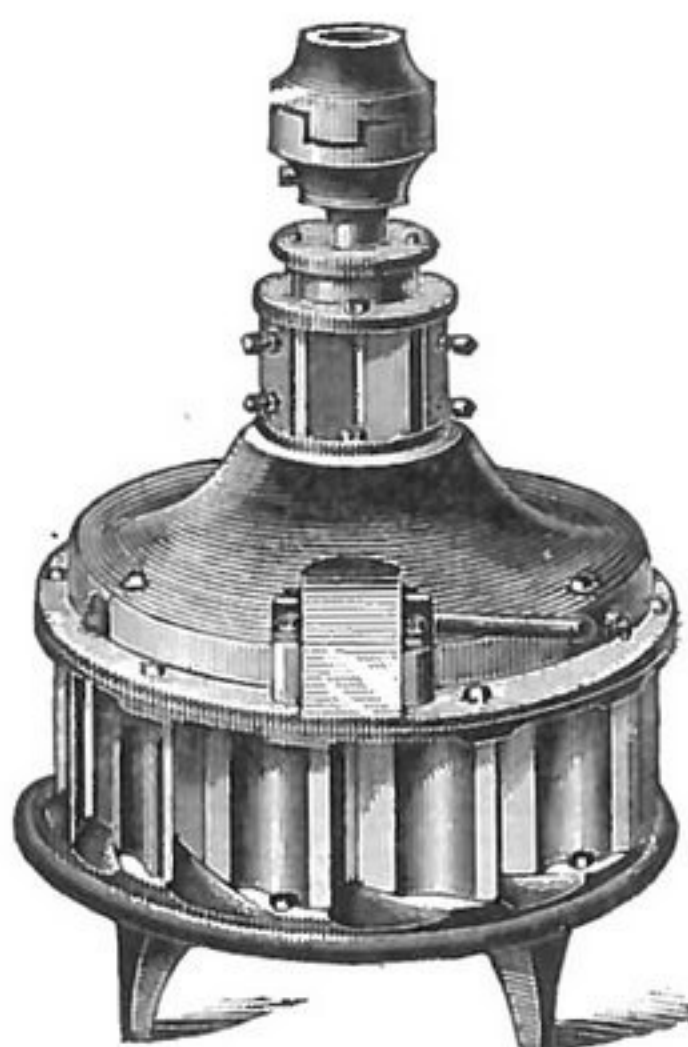
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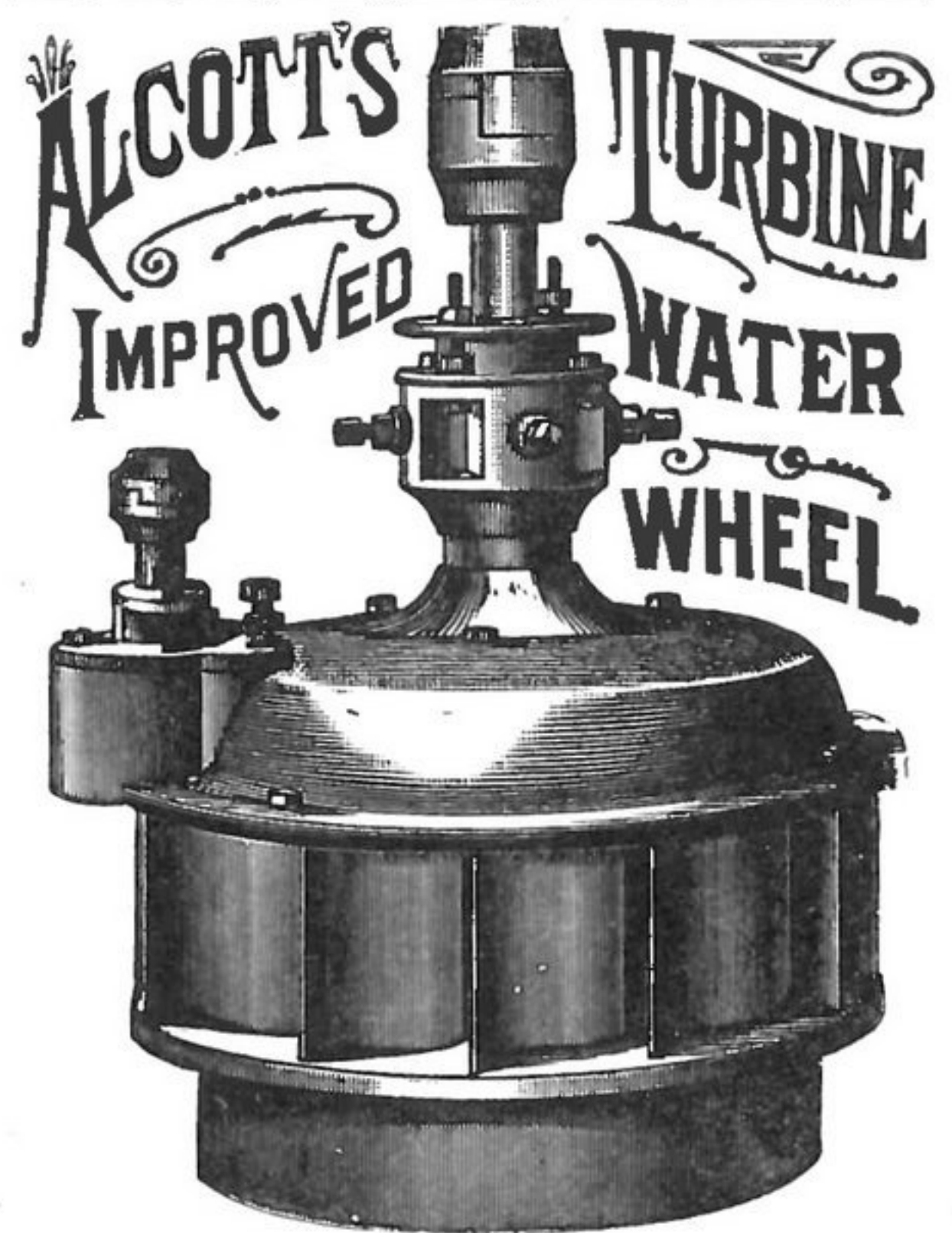
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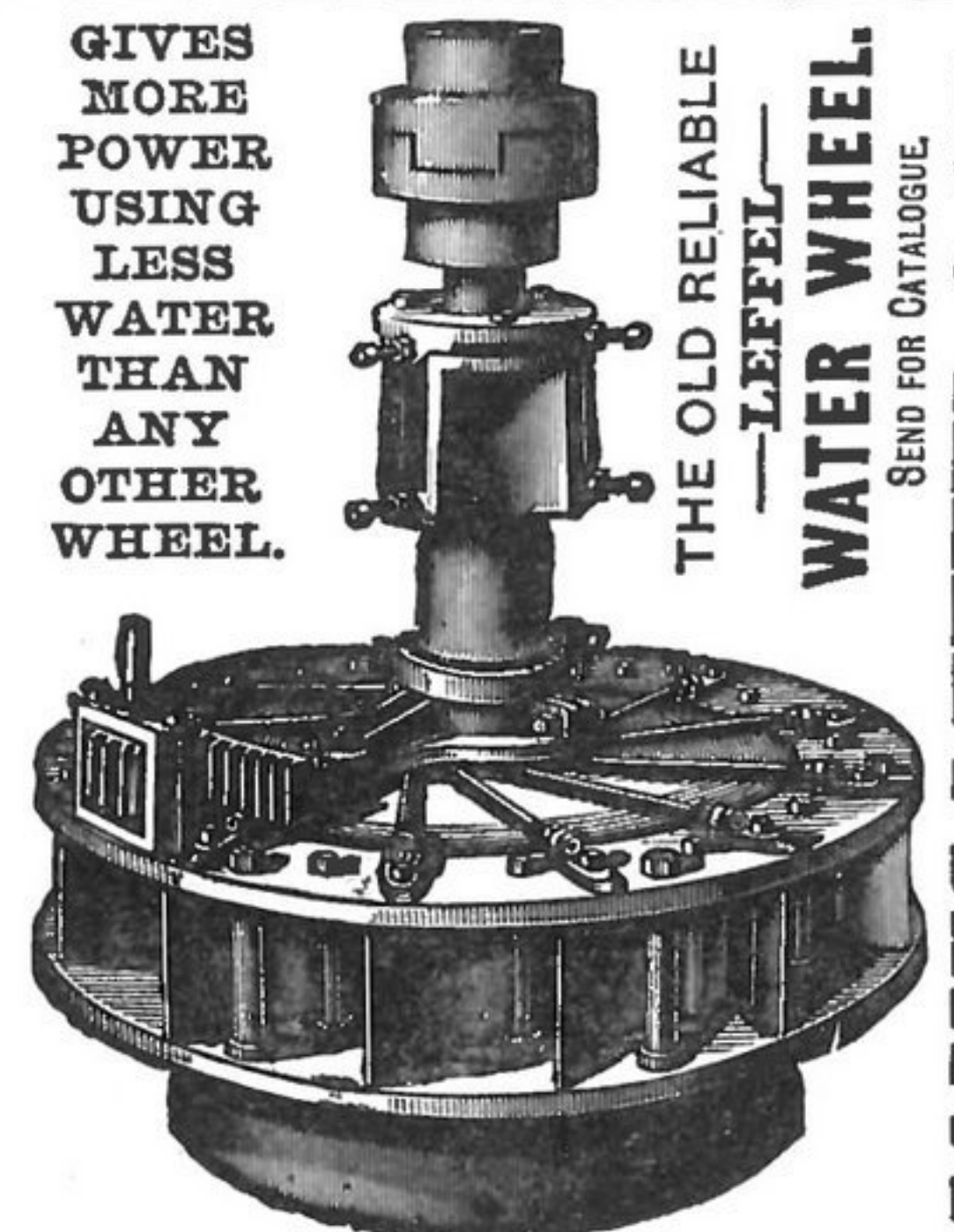
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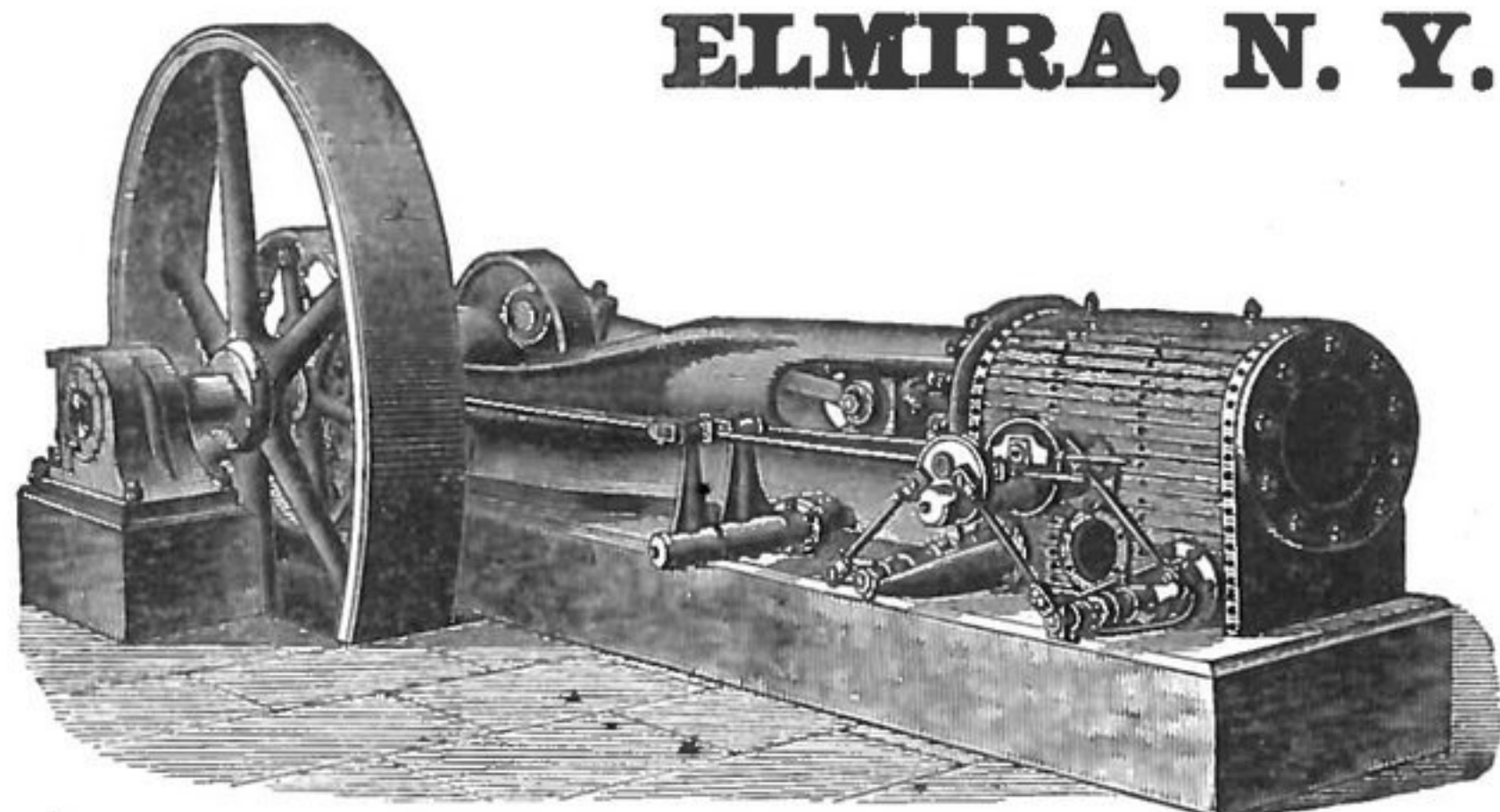
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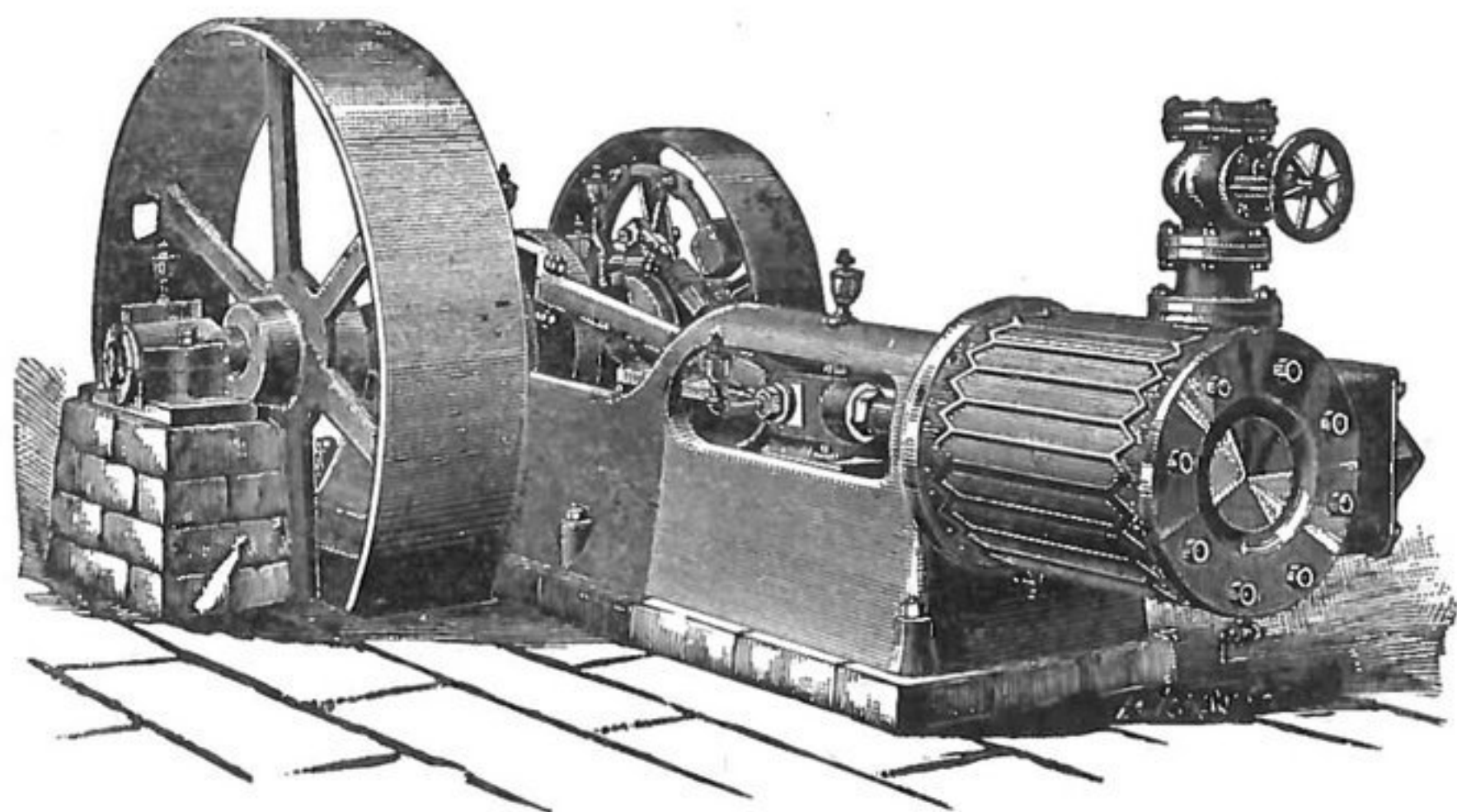
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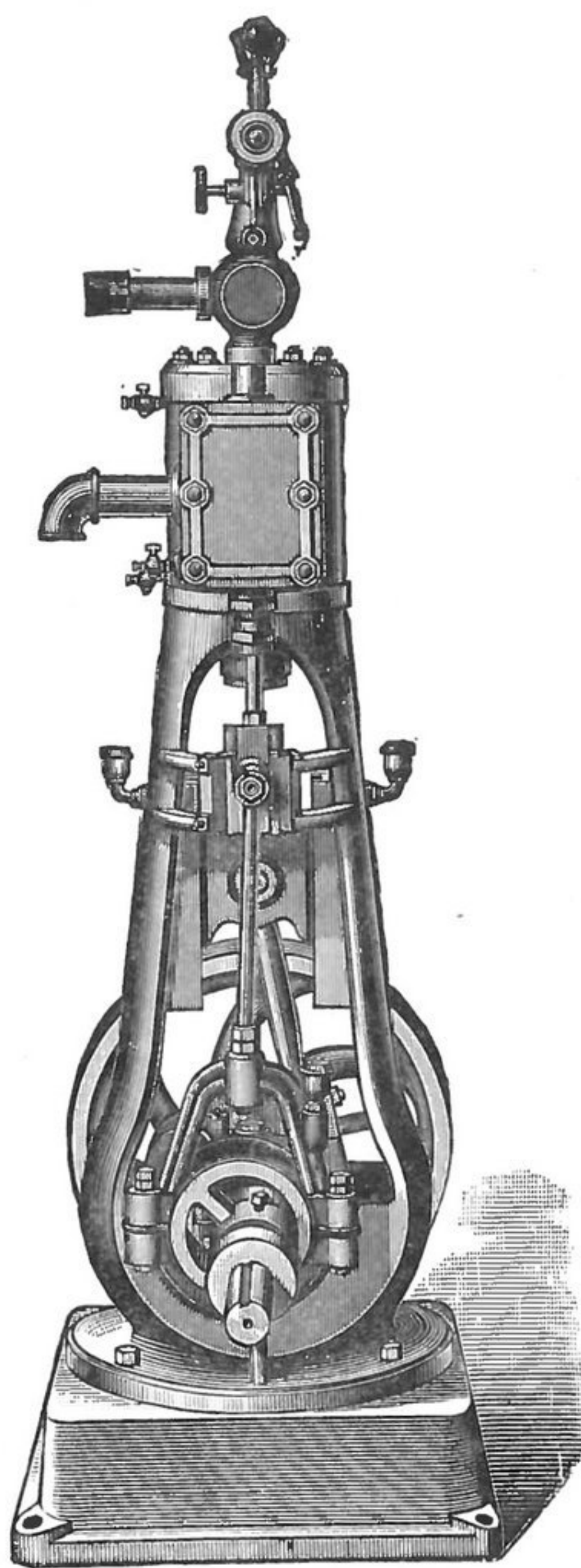
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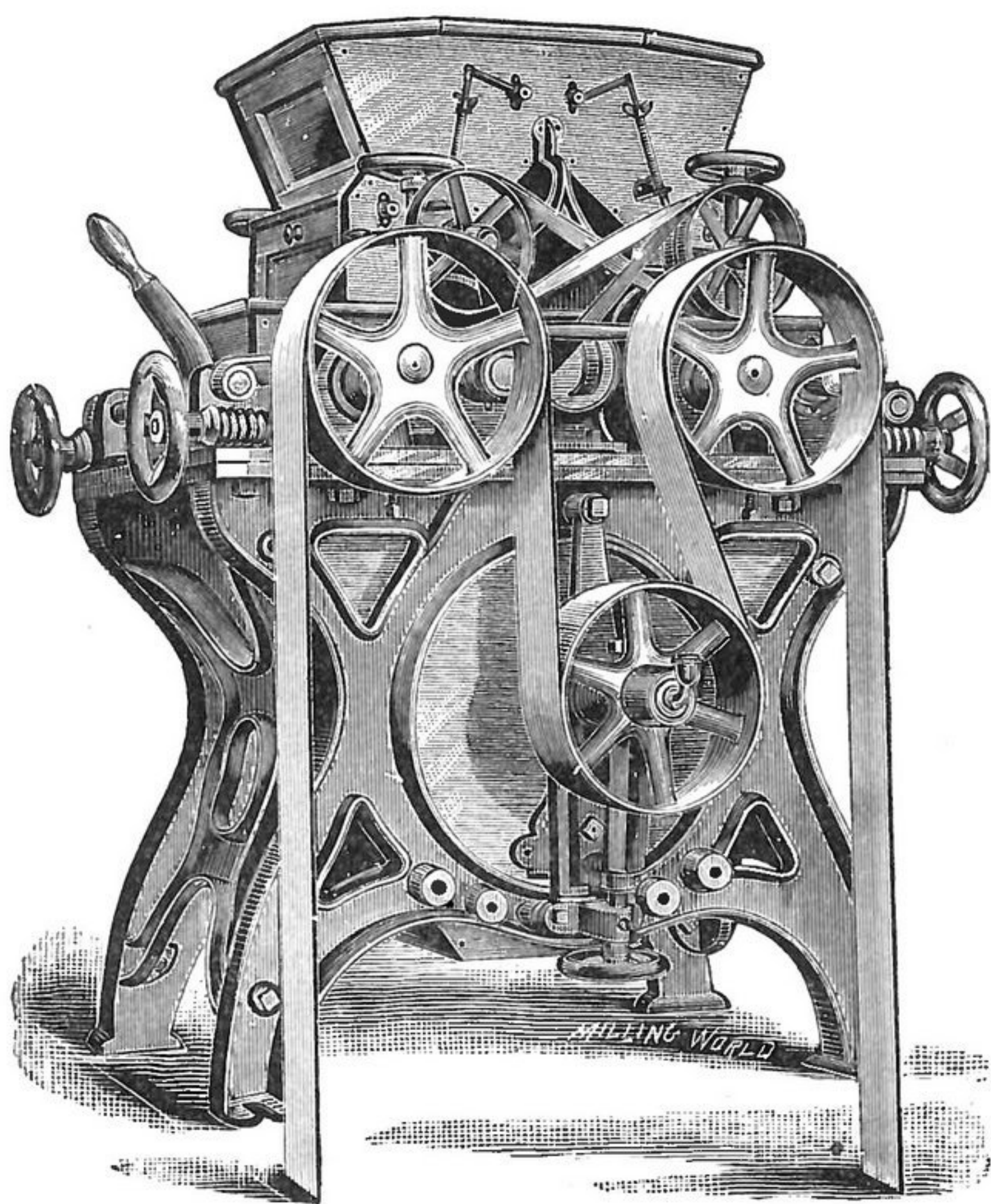
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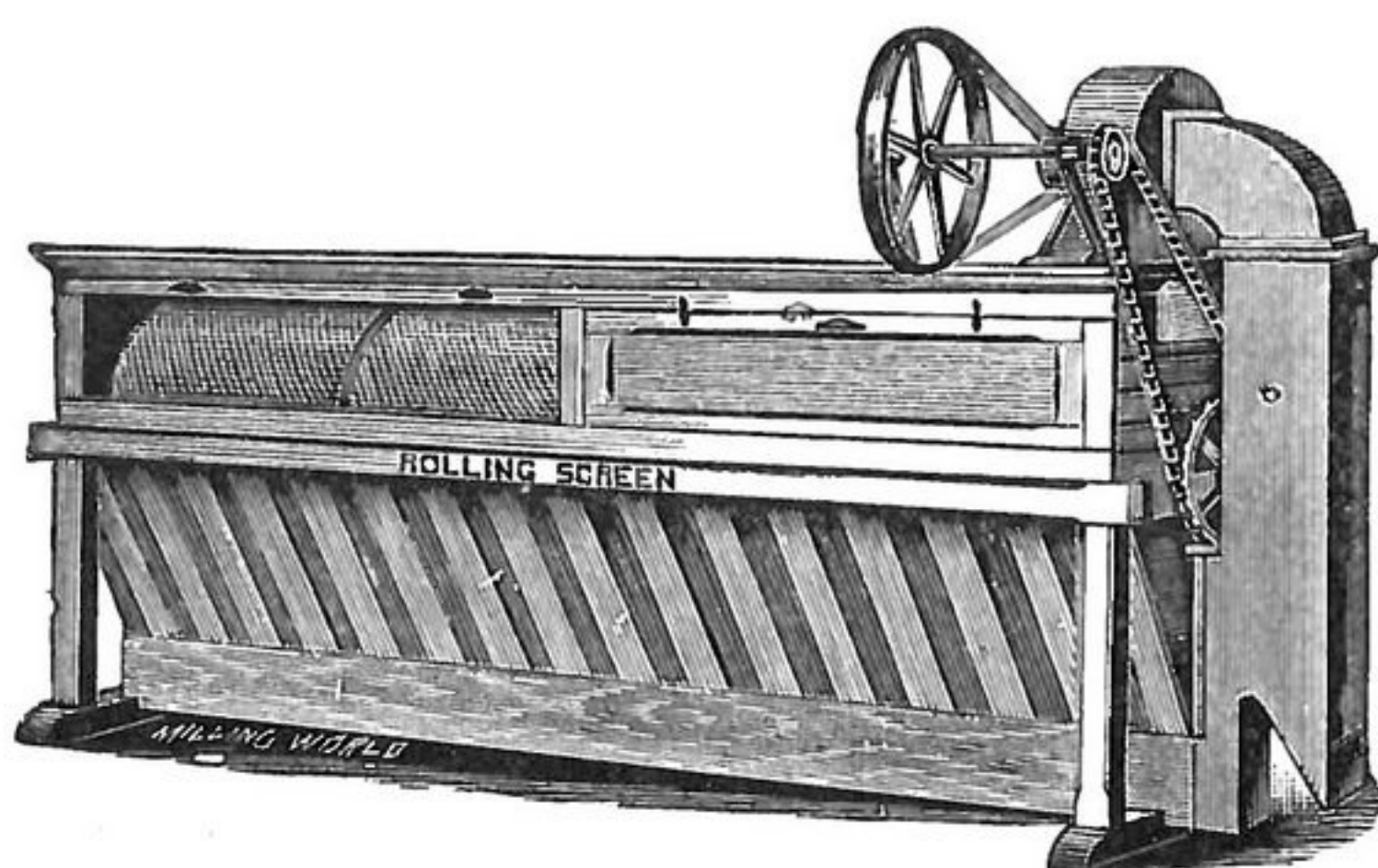
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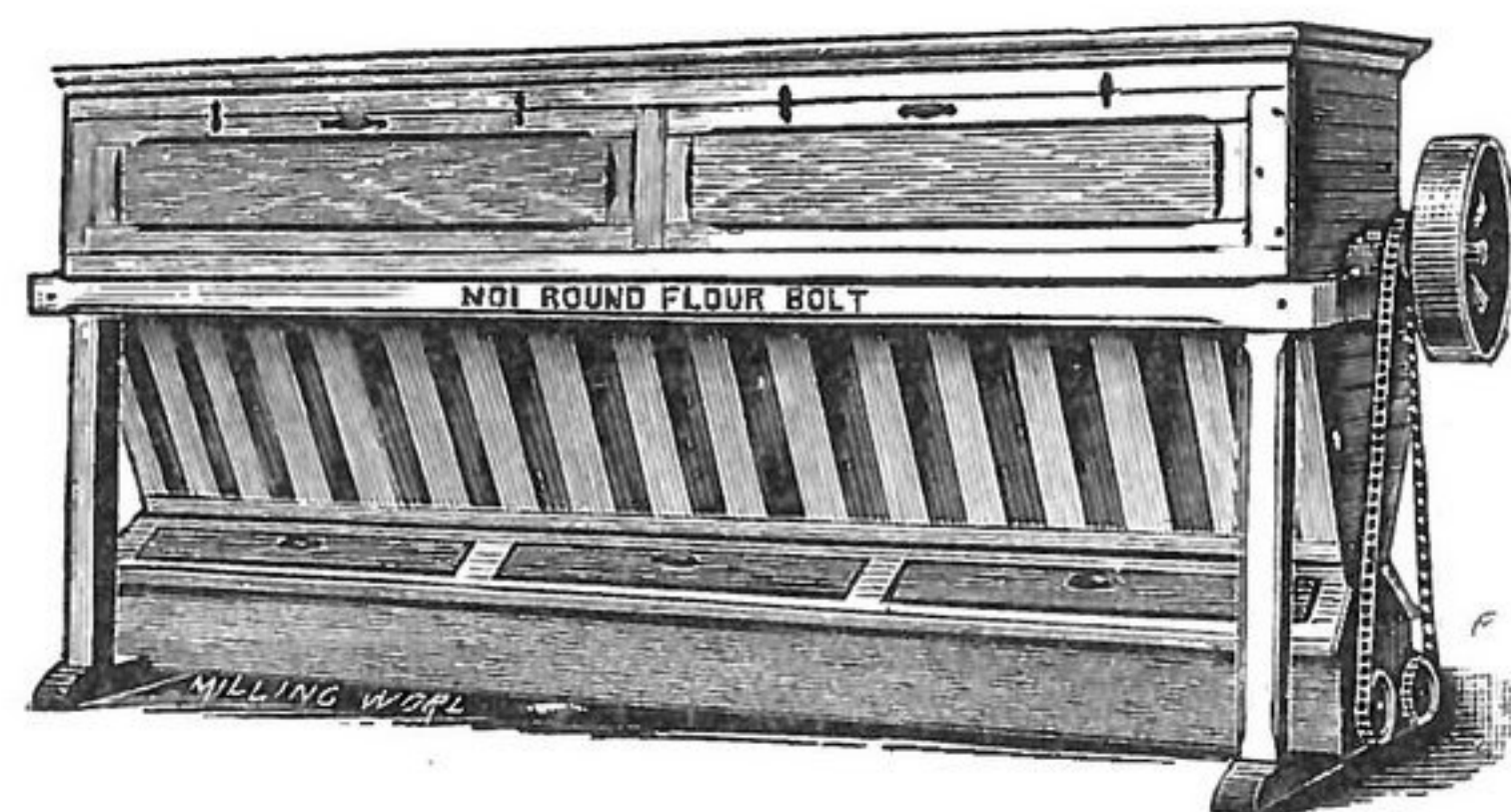
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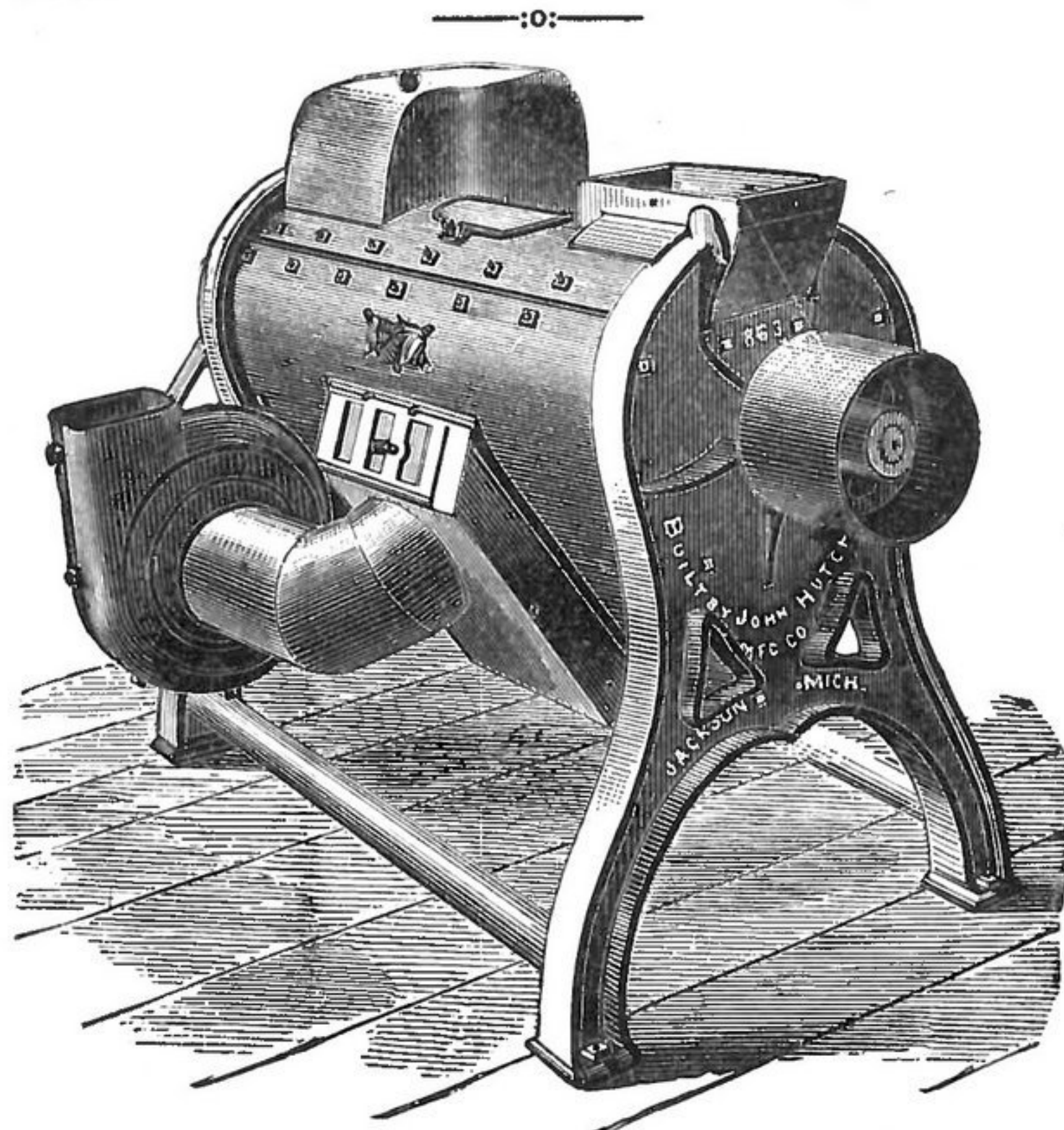


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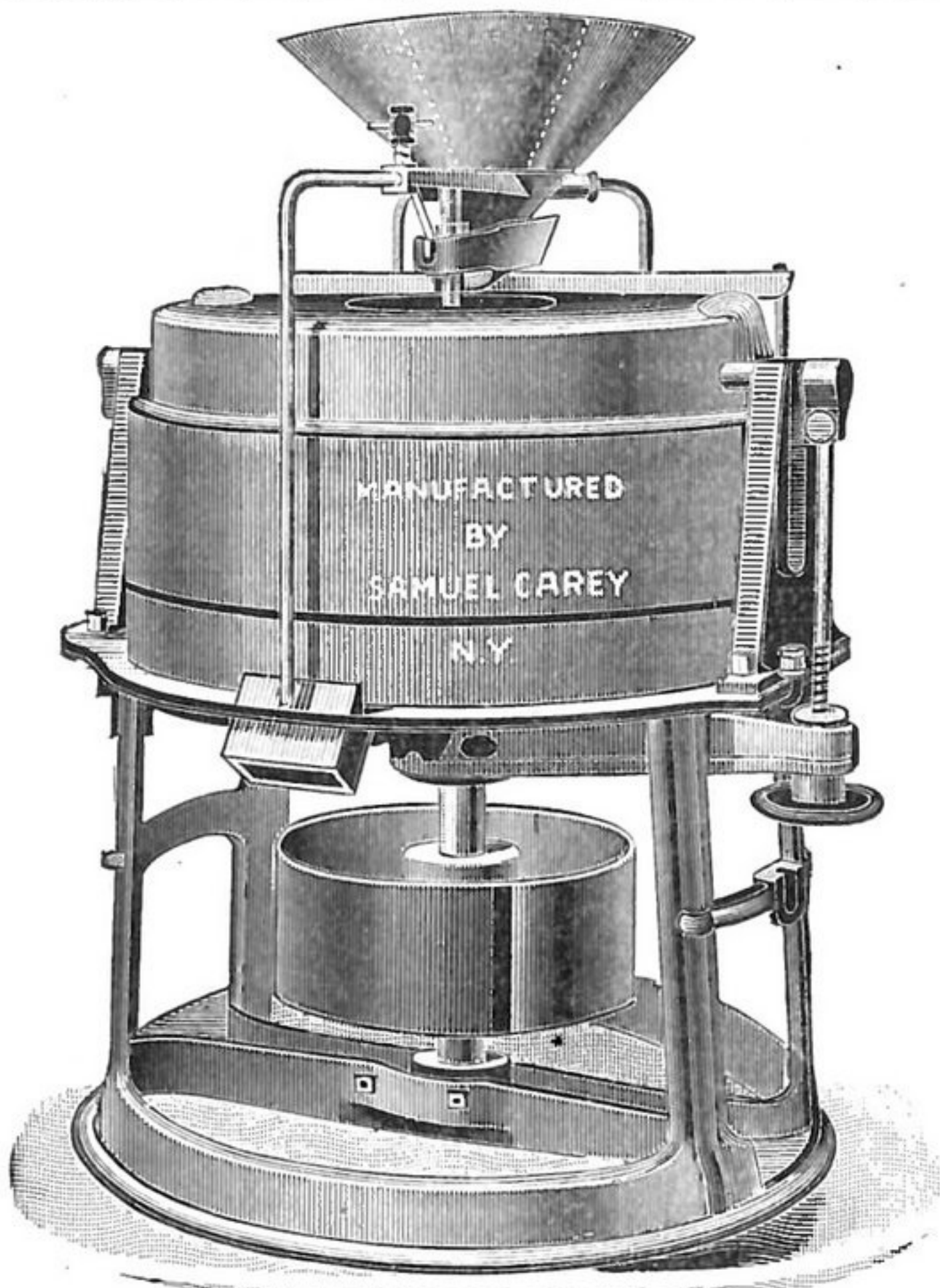
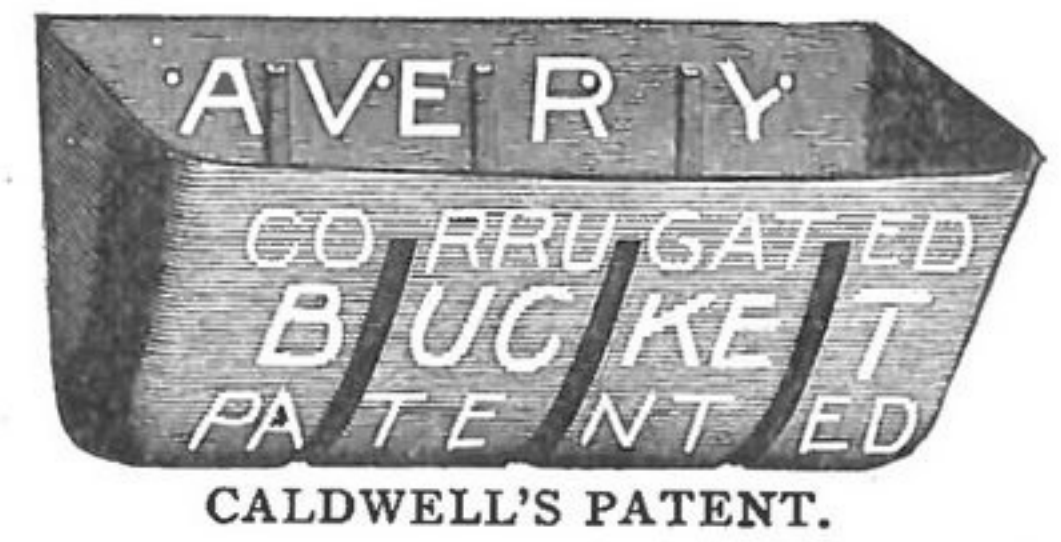
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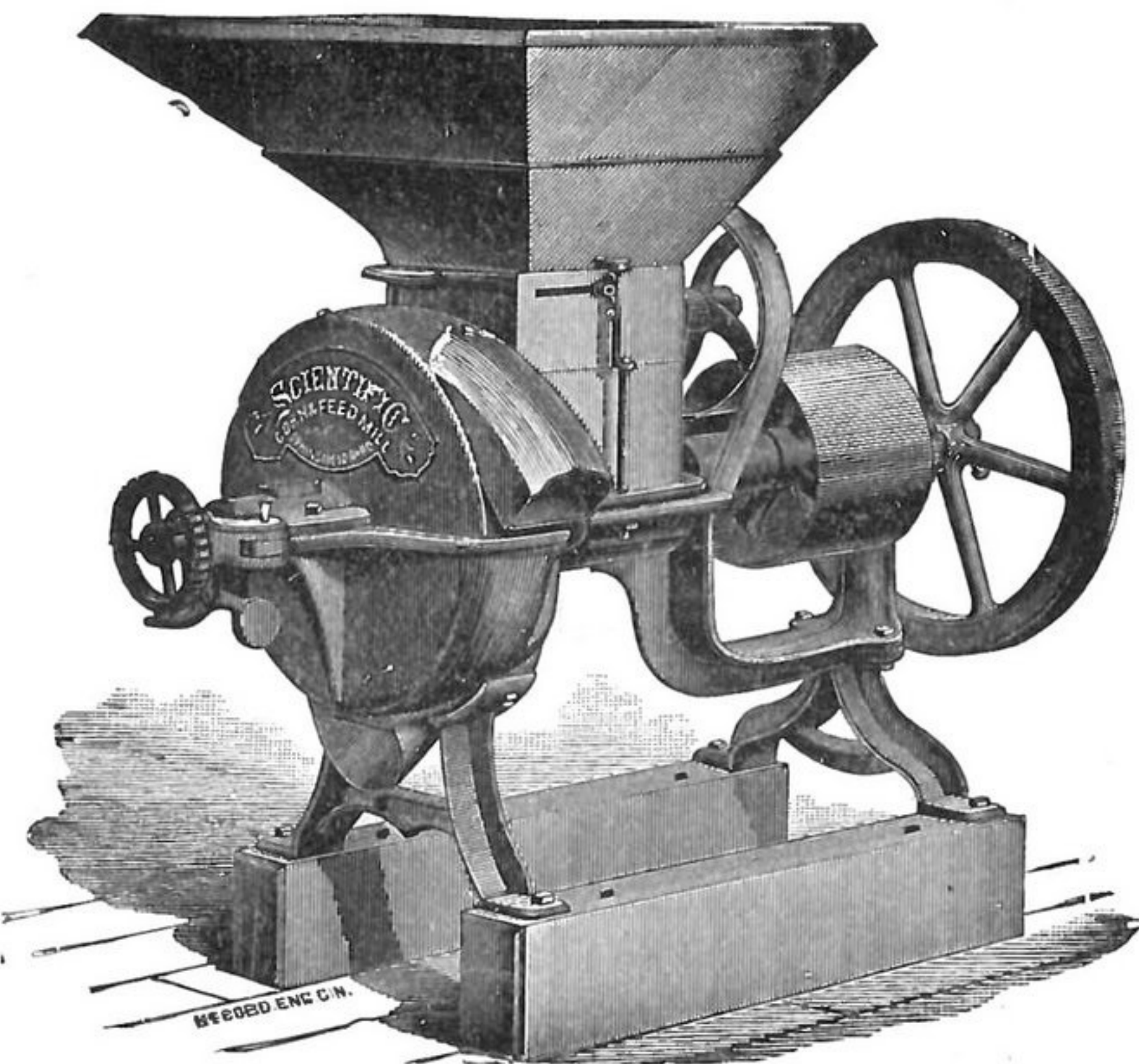
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